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ORIGINAL ARTICLES.

ADDRESS ON HYGIENE.*

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A few days ago when I came to reflect upon the subject selected by our able President as the one upon which I was to address you I was not a little perplexed. For me to presume to teach a learned body of Medical Doctors, such as have here congregated, regarding the most important branch of Medical Education would be unpardonable. I can, therefore, only hope by chance to refresh your memories upon a few points in Sanitary Science. As a teacher of medical students I have seen fit to divide the subject into *personal*, *general* and *public* hygiene.

Including under personal hygiene:

Inheritance,
Hygiene of various periods of life,
Prevention of mental, moral and emotional diseases,
Prevention of sexual diseases,
Hygiene of clothing,
Hygiene of occupation, etc.

UNDER GENERAL HYGIENE.

Hygiene of foods—
- Practical dietetics,
- Food adulterations,
- Food decompositions,
- Accessory foods, etc.,
  - Stimulants and narcotics,
  - (Intemperance.)

Hygiene of water—
- Water supply,
- Potable water,
- Balneology.

Hygiene of Dwellings—
- Air, humidity.
- Lighting,
- Heating and ventilation,
- Plumbing,
- Drainage and sewerage,
- Location and soil—
  - Ground air,
  - Ground water,
  - Soil pollution.

Climatology,
Medical Meteorology,
Animal parasites (Examination of meats, etc.)
Vegetable parasites (Bacteria.)

PUBLIC HYGIENE.

Infectious diseases,
School Hygiene,
Quarantine—means of combating diseases,
Disinfection,
Hygiene of hospitals, prisons, etc.,
Vital statistics,
Legislation of public measures,
Vaccination, etc.,
Disposal of the dead.

This scheme may appear too comprehensive for a student of medicine under our present short graded courses of three years, yet, as it is not in the least too general I would be pleased to see it introduced into the curriculum of every medical teaching institution of our Keystone State, and at the same time to have its standard well protected by a learned State Board of Medical Examiners. However much I may advocate this standard in our medical schools, I can assure you that my address to you will be exceedingly short. I will not presume to air my own erudition in a comprehensive lecture on sanitary medicine, as I feel sure it would be at the expense of others who are here, I have no doubt, to teach us that which has not heretofore been known to the medical

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profession. To avoid inflicting tediousness upon you my fellow members of the State Medical Society of Pennsylvania and for brevity's sake, I will merely attempt to refresh your memories upon a subdivision of my comprehensive scheme of preventive medicine, which will be *air*. In considering the importance of this element to sanitary science we must recognize that man's surroundings are, and ever will be, impregnated with minute life which will, when brought into relationship with a favorable nidus, at least direct either functional or comparatively harmless pathological conditions into maladies which nature may neither exist under or overcome. Again, it would appear, so far as we can determine from artificial experimentation, that this micro-organic life can *per se*, when introduced into healthy tissues, disturb the normal affinities of the animal economy. This being admitted, we must accept the situation and prepare ourselves for war with this minute life by first building up healthy, vigorous tissues, for, the instant we permit them to drift from a normal condition they at once offer a nidus where pathogenic organisms may feed, grow, reproduce and form toxic substances which will so disturb the higher animal organic life as to cause dissolution. To grow tissue sufficiently vigorous to destroy these germs of disease as they enter the body under ordinary circumstances, we will be compelled to call to our assistance each and every hygienic measure known to man. We must enforce proper mental and moral training, suitable clothing, occupation, diet, bathing, sanitary dwellings, urban parks, proper food, vaccination and above any other one element *pure air*. However, as I have already stated that I do not intend taking advantage of the privilege granted me by this society, I must and will confine myself to the factor that above all others takes a high position in governing health and disease and at the same time the one most frequently lost sight of by both the layman and physician. The high place I give air as a sanitary factor may be severely criticized, for I do not know of any means by which we can measure the influence of isolated factors in favor of and antagonistic to the health of animal life. I will, however, for my purpose on this occasion venture to place air on a high plane, as our whole vital process is dependent upon this one element. To appreciate the importance of this, the chief factor of organic existence in relation to both health and disease, we must ever keep before us, in at least a superficial way, the physiological processes dependent upon this mechanical mixture. Animal life demands air through the organs of respiration and transpiration from the very moment it obtains an independent existence until the last act of life is performed. Parkes very truly states that starvation is a matter of days without solids, hours without liquids, but of minutes without air. We must ever bear in mind, that the air, made up of 20.96 per cent. O., 97 per cent. N., and .04 per cent. of carbon-dioxide, a strong man takes into his lungs supplies oxygen to 443,520 ozs. of blood every twenty-four hours. To obtain a full supply of oxygen for the tissues through the red blood corpuscles *all* the physiological functions of respiration must be in health, for this reason we cannot entirely overcome inherited inconsistencies. If there is any reduction in the required amount of this important constituent of the atmosphere, just to *that* degree of loss do the animal functions of the body become impaired and the moment there is an entire cessation of the supply of oxygen, life immediately goes out. It would seem that the nervous system first feels its loss; then the heart, the brain and the digestive system, etc., all become sluggish in their respective functions, the results of which are reflected upon every cell and fluid in the animal body. Physiological combustion is interfered with and consequently the required chemical changes necessary for health do not take place. The blood is loaded with debris and is thereby rendered unable to take up the waste of the tissues, but leaves it as foreign matter to undergo changes and form poisons.

Consumption of the lungs is always to be found in great excess both in man and in the lower animals, who live in such environments as compel the breathing of devitalized air, producing sluggishness of physiological action. It is under this condition that the digestive secretions are impaired and the general physiological combustion reduced so that the body becomes a habitat for germs, called pathological micro-organisms, and they, with their respective methods of digestive processes, affect a

breaking up of the already weakened affinity of the molecules forming the cells and tissues and in some way or other these organic chemical substances are toxic to animal life. The powerful effect of repeated infinitesimal quantities of these poisons, which are often albumoses, is beyond our present knowledge, yet, we have good reason to believe that they cause many chronic changes that insidiously creep upon us, while large doses of them cause death almost immediately. For instance the subcutaneous injection of blood taken from an animal with uræmia produces uræmia in the recipient. Prevention of elimination through the excretory organs will also produce the same result. Gautier and many others have thoroughly demonstrated that animal tissues in process of putrefaction and decomposition invariably elaborate certain alkaloids of very powerful toxetic properties. To-day we know that these toxic albumens are also formed during the life of the animal tissues, and are called leucomaines; any excess of the production of such substances in the animal economy, even in most minute quantities would certainly be very dangerous to health were it not for the eliminating organs. This is demonstrated by an instance just cited in which the kidneys were ligated, and the animal thus affected soon died with symptoms indicating a malady that has received the misnomer of uræmia. The production of the waste is in reality a feature of life. Dr. A. M. Brown very properly said, "Life is a contingent phenomen consisting of partial births and deaths. In the midst of life we are in death," for, scientifically speaking, it must be admitted that the living body always bears with it the components of the dead one. Life only goes on as long as the organic and inorganic work together, and to carry on their functions consistently with health, the normal quantity of oxygen must be furnished the blood in order to form normal waste. The disassimilation that results from overloading the system with debris, because of the blood being deficient in its carrying powers, often results in the production of leucomaines. Impure air often contains these toxic alkaloids that I have said are produced outside of the living tissues, and can be taken into the body through respiration. The decaying organic matter in the air in a Russian hut in the spring time after it has been occupied all winter, will, with many people, bring on nervousness, indigeston and diarrhœas and sometimes typhus fever, either directly or through the agency of minute life. I am convinced from my investigations that no one living in a normal atmosphere, performing that sort of physical exercise calculated to pump a normal quantity of air into the lungs would likely become a victim to typhus fever. Let it be a reproductive poison or not, it is, I have no doubt, favored by impure air, which not only supplies toxics formed outside the body, but also permits them to form in the tissues. If our people had a bountiful supply of pure air furnished to the lungs, we would all, even we bacteriologists, attach less importance to the disease-affecting and disease-producing micro-organisms. On the principle of resistance, man must protect himself against the deadly work of micro-organisms. We cannot directly exterminate them outside the animal body, or as yet see our way clear to overcome their pathogenic characters. If they once gain entrance and establish themselves in their human abodes it is a most difficult task to successfully battle against their action upon the tissues without overcoming the animal economy. For this reason, therefore, we must, as I have said, supply the body with its required amount of oxygen to keep up the highest degree of vitality in every member. Otherwise the secreting and excreting organs will cease to do their full quota of work and the tissues will not continue to undergo that constant regeneration that is necessary for health; the blood can neither carry nourishment to the respective organs nor in turn convey the debris to the eliminating viscera. The importance of pure air for the health of man must be apparent to us all from the fact that the very environments in which the animal kingdom has been evolved is most constant in its supply of this mechanical mixture of oxygen, nitrogen, and carbon dioxide, as they are the constituents of the very element that has permitted the present development of man and the lower animals. Without it we are *a priori* infected by the formation of leucomaines which would otherwise be prevented by normal physiological combustion. I believe we often find an example of the want of a normal elimination

of debris in children living in cities. A child, particularly one with insufficient chest expansion that has been taking considerable exercise in a badly ventilated room, will frequently suffer toward evening with what we call growing pains, and at times with a slight rise in temperature, while *the same child* when submitted to like exercise in country air, where it can obtain sufficient oxygen, will not be subject to the same painful affection. In many such cases it is quite probable that the trouble is brought about by the inability of the blood to furnish enough oxygen to the tissues and to carry away the debris and if this condition is carried on continuously for some weeks, we will have a continued fever due, in all probability, to the formation of leucomaines, or to catarrh of the digestive tract. The physiological process of life not only demands the formation of natural tissues, but also of *normal waste* and the moment the eliminating organs are called upon to battle with foreign matter, their scope of power is limited and the tissues irritated; as for instance, when the kidneys are loaded with uric acid crystals, the results of which we are perfectly familiar with. This condition can be overcome if we have both healthy lungs and nervous system; the latter to transmit normal impulses to the respiratory muscles, and thus furnish the blood with pure air to bring about natural physiological combustion. You may limlt your patient's diet to non-nitrogenous food-stuff, you may wash him out with the free administration of water and you may drug him with any or all of the remedies known to the medical profession that have any relation to a gouty diathesis and find your treatment of little or no avail unless you have the patient exercise in fresh air. Perfect oxidation of the food is the prevention and cure for gout. The changes effected by the artifice of man in the normal uniformity of the composition of the atmosphere is too significant a fact for us to lose sight of when considering a means for the preservation of health and the cure of disease. Pure air breaks up organic matter and renders it both harmless and also useful to each and every form of life that has been evolved in its midst. Without its chemical action upon inanimate matter, heat and energy would not be produced and the world would be without animate things. It creates and supports life; therefore, the moment we overload it with impurities, that moment we interfere with its power to maintain health. Yet, owing to man's present want of appreciation of the necessity of maintaining the purity of this mechanical mixture for health, I have never found in his habitations an approach to purity in this great life-supporting element. It is mostly deficient in oxygén which is replaced by carbon dioxide and carbon monoxide, toxic, non-toxic, organic, inorganic, matter and frequently by pathogenic micro-organisms.

The carbon dioxide is of course, the least harmful. It being within itself only a negative poison. We do not now believe that the 123 persons that died out of the 146 confined for one night in the Black Hole of Calcutta, nor that the 70 passengers who died out of the 150 that were fastened in the cabin of the steamer Londonderry with the hatches battened down during a rough night in the year 1848, were killed by asphyxiation from carbon dioxide, but that they perished from the animal alkaloids formed out of the organic debris exhaled by the lungs and skin into an atmosphere deficient in that great purifier—oxygen. Organic matter is also taken into our buildings by soil air, our boots, and in large towns and cities, by the very air we are compelled to circulate through our dwellings as the nearest substitute obtainable for nature's atmosphere. The air of Philadelphia this month is so laden with filthy organic matter raised from the dirty alleys, (I say alleys, because they are not worthy the title of streets,) that when the sun's rays strike them as suspended in the atmosphere of a room slightly agitated, you instinctively hold your breath. Not only is this air loaded with filth that undergoes a chemical change and forms compound poisons when retained in rooms deprived of sunlight and deficient in oxygen, but we have also sub-soil air that circulates through earth so poluted with sewage that when brought to the surface you can smell it, with a moderate wind, some 1,000 feet away. This is the condition of the air that circulates through our cellar walls in Philadelphia, the average stones of which they are built containing nearly fifty per cent. of air which is constanly interchanging with the surrounding

atmosphere. Again a large proportion of the floors of hot air chambers of our heating furnaces are built of porous earth. What is the effect of this condition of affairs? Why, the air in the hot air chamber is lighter than the filthy sub-soil and outdoor air, therefore, the heavier outside column forces the poisonous sub-soil air through the floor of your hot air chamber, filling the space with a poluted air. This in turn becomes lighter and is forced through the hot air flues into the living rooms to feed the occupants, and we wonder why we are not typical specimens of the genus Homo. During the early part of this century, Philadelphians were not satisfied with the cess pool and sewage filth they could take into their bodies through the air. The cess pools and sewers were built with what is called dry walls, which are walls constructed simply of bricks with open inter-spaces. The object being to permit the percolation of the effluent through into the surrounding subsoil, the idea being that mother earth was a great and inexhaustable purifier. This, however, was too complimentary, her power was limited and the sub-soil soon became surcharged with filth and through this polluted ground they deliberately laid wooden conduits for water carriers, which in certain strata of earth soon decayed and became very porous, in fact so much so that disease-effecting and disease-producing micro-organisms would pass through their walls into the stream of water, on its way to the drinking tap in the houses of our ancestors. If this condition of affairs existed at present, we might be even more apprehensive than we are of the threatening cholera epidemic. Another substitute for the oxygen that our house air frequently contains is, as I have already mentioned carbon mon-oxide. This gas is a direct and deadly poison, one per cent. of which in a confined atmosphere will unite with the hæmoglobin and deprive the red blood corpuscles of their power to carry oxygen to the tissues, in consequence of which the nerve centres fail to respond to stimulation and death ensues. The usual sources of this gas, which I believe to be one of the great predisposing causes of early decay of our faculties, is the combustion of the substances used for producing heat in buildings for the various purposes of man. It is non-odorous and will pass out through cast iron when sulphurous acid gas, which when present acts as a tell tale, will not escape. Hot air furnaces and stoves for the burning of coal are fertile sources of this poison. Yet, our city fathers in Philadelphia were not satisfied with the small volumes of this insidious poison produced and permitted to escape into the air of our buildings from this source, and they therefore introduced water gas into our mains. This gas must contain at *least* 35 per cent. of carbon mon-oxide and at the same time has a solvent power on a residuary substance that has been deposited in our old pipes from coal gas, which prevented leakage—consequently during the last year our houses have been deluged with this health destroyer. There is no doubt in my mind, but, that much of the so-called diphtheria in Philadelphia last winter was a tonsilitis caused by water gas poisoning. Our people, however, because they are furnished with a better illumination by this gas which is richly charged with carbonaceous material, go on electing to office those who are through ignorance poisoning our bodies and, at the same time, burdening us with as heavy a tax as the English laid upon our colonial ancestors, by charging for this poisonous gas about three times the cost of its production. Deficiency in oxygen and the excess of carbon dioxide and the additions of carbon mon-oxide and organic matter in the air of buildings occupied by man and the domestic animals undoubtedly play a most important part in the etiology of all pathological processes, yet, the injury comes so slowly and continuously that man does not fully realize the presence of the enemy until too late. The people's medical advisers do, however, realize this condition and also the importance of pure air to maintain health and to overcome pathological processes. Therefore it behooves our profession to teach the people, particularly the law-makers of our land, the necessity of having this element, with which nature has so bountifully supplied the organic kingdom, kept pure. Each physician should insist upon his patients refusing to endorse any candidate for public office unless he gives a pledge that he will exert himself to have laws made and enforced to bring about a higher degree of health. It is as important to compel our people to have properly ventilated and lighted houses as it is to

have sanitary plumbing, which latter our laws require. As physicians we forget the scope of our power and neglect our moral and professional duties. It is incumbent upon us to instruct our patients how to preserve health and thereby improve the moral, religious and political standard of this the greatest nation of modern times.

Ill health is the parent of much that is bad in civilized life and it lies in our power more than it does in those devoting their lives to the professions of law and theology to advance the moral condition of our people. There is not a man, woman or child in this great State that is without a physician. He is thrown into the most intimate relationships with his patient and by teaching the proper laws of hygience he can greatly reduce murder, suicide, drunkenness and family feuds. If this is so, why are we not doing our duty? The answer must be that sanitary medicine is not attractive, in fact many of its details are naturally repulsive and not profitable to him, and therefore the physician shuns it in his private capacity and this is wherein he fails, for it is not as a reformer, legislator, or a scientist, but as a family physician that his great power for good in this direction lies. It is in this role that the doctor of the present day is at fault, he does exert himself to legislate, to exhort his fellow physicians, but, as the familiar family doctor, he fails to take advantage of his power to exert a moral influence over his fellowman. The great physician must bridge over the wide gap between science, in the abstract, and medicine as it should be practiced in every day life. Without a moral influence over his patient, he cannot reflect the full power of his scientific knowledge.

In no other profession is the adviser brought into such intimate relationship with his fellow creatures when they are susceptible to advice, unless it be the spiritual adviser whose duties too often come when the question of life is about to be closed. At the word of the physician families separate for years, men give up their trades and vocations. Their domiciles are moved to higher elevations, or to the seashore. Therefore, if we have it in our power to bring about such radical changes as these in the habits of our patients, why is it that our homes, factories, mills, vehicles, hospitals, places of amusement, etc., etc., etc., are so poorly supplied with fresh air. Again why is it that our cities in this great State are permitted to be built up so closely? Where are our urban parks, gardens, and playgrounds which are necessary to keep up the average standard vitality of this great nation? I say nation because it is made up of individual men and women, its power being simply the sum total of the force of the individuals that go to make it up, and the more thickly the inhabitants are settled the lower is the degree of health. It has been said that, all things being equal, the health of a population is in inverse ratio to its density. The only way to overcome this rapidly increasing evil of huddling together is by opening to the people public gardens and open spaces and wide boulevards. A wide avenue is now proposed in Philadelphia, which would not only give to the city as it were, a new lung but it would make a short and attractive walk and drive to the greatest city park in the civilized world. I have heard it spoken of as an ornamental luxury, but I believe it is a crying sanitary necessity, which if once demonstrated to our lay people by its physical opening, would, in a short time, be followed by a request to the authorities for others of a similar nature. Outside of a better sewage system and a mechanical filtration of Schuylkill water I know of no other more crying need in that great city of our State than air spaces and vegetation.

The way in which our towns are being closely built up is disgraceful to our city fathers and reflects somewhat upon the medical profession. Too many poorly ventilated public school houses are at present being erected. They are built upon contracted spaces, without gardens or playgrounds, where the brains of the present generation are overworked and the body starved and poisoned for want of pure air. To pass one of our public school houses in Philadelphia at noon and see the pale faced children playing on the damp brick pavements between two high walls shutting out the rays of the glorious sun, makes one blush with shame for the ignorance of our people. While to enter one of our school houses during session soon benumbs one's brain. During the last winter, young girls in our Normal school fainted away for want of oxygen. The remedy for this deplorable condition

of things is largely in the power of the medical profession. If each doctor in this community would teach his patients the importance of pure air, there would be such a universal demand that those holding public office would be compelled to grant us better ventilation in public and private buildings, give us wider streets, more small gardens, less water gas, better sewage, cleaner streets, and less smoke and lower buildings, which latter would permit of the sun's rays shining to foundations of the buildings on at least one side of the street. The recent structures in the large cities in this country are monuments of ignorance of our people, that our descendants will censure us for in time not far off. Our streets will soon be but caverns such as the half-civilized man lived in centuries ago, mere fissures between great walls of stone and bricks; damp, sunless, and dirty, a sine qua non for disease germs. Less steam from the factories, locomotives, and engines should be demanded. These improvements would lead to a decrease in the mortality of children, crime, drunkenness and immorality and to a marked raising of our standard of mental power.

To-day it is a crying shame to our intelligent classes to analyze the air in our medical teaching institutions. Only a few years ago Dr. Kerlin made a series of important examinations of the hygienic conditions of the air in the lecture rooms of Medical Hall of the University of Pennsylvania, with the result of showing 17 per cent. of our index of impurities, or in other words the carbon dioxide raised from 4 parts in 10,000, to 17 parts in 10,000. While 6 parts in 10,000 represents the maximum of impurities in ordinarily well ventilated rooms, 7 in 10,000 is detected by the sense of smell.

In studying the etiology of disease, we must not permit ourselves to be persuaded that bacteriology has given us Le mot d'énigme. Micro-organisms undoubtedly have the power when introduced into the circulation of healthy animals, of producing certain diseases, yet I feel convinced that in tuberculosis and many other germ diseases they in a large majority of instances, only change an already unhealthy tissue into one definitely and fatally morbid.

Normal tissues supplied with pure air have great power to resist germs taken into the body through either the digestive or respiratory tracts. This conclusion is reached from the fact that I found guinea pigs and rabbits yielded much more readily to inoculations by tubercle bacilli when confined in cages kept in the cellar under my city laboratory, than they did when kept in my animal house situated in the country and so arranged as to have a large volume of pure air circulating through it both day and night. To avoid tuberculosis we must recognize the predisposed habit of the individual and have him live in pure air and not breathe a deoxydized atmosphere, or air loaded with fibrous matter, or spiculated dust, or air impregnated with the products of combustion of coal, or the escape of water gas, or a high percentage of humidity, or air that has been robbed of the sun's rays. This last is not the least important. It not only prevents dampness but destroys poisons, such for instance as the woorara snake poison and bacteria. If such environments are not avoided a lower and lower vitality will creep on insiduously inch by inch until a pathological condition becomes recognizable both to the victim and his medical adviser. At this stage if not before, a nidus has been formed which is quite susceptible to the action of pathogenic minute life, and should the patient not be removed from the environment that predisposed him to the attack of the germs, his resisting powers will be still further reduced. It may however, be discovered early enough to not only prevent a greater degree of susceptibility but, by proper hygienic conditions, the tissues in many cases will return to that degree of health not suited to the lives of micro-organisms.

I do not mean to undertake to weigh the exact power of germs to break up the affinity of normal tissues when brought into contact with them in what we may call the natural way, to differentiate it from an artificial method. I do intend, however, to say that if we can maintain by the aid of pure air and proper physical exercise the integrity of function to a degree that renders the tissues almost impregnable to the attacks of micro-organisms, we must girdle ourselves with an armor of general good health if we wish to resist the attacks of minute life. The prevention of premature death, disabled physical and mental faculties, forms a far

more comprehensive question for the physician than does curative medicine, at the same time we must recognize that preventive and curative medicine are inseparable. While we are gathered together in convention, we all advocate hygienic measures, admitting them to be paramount to the more fruitless task of the so-called curative side of medicine; yet, I fear we are in preventive medicine too much like many of our Sunday Christians, who believe in the theory, yet forget its practical workings by the time the business houses of Monday morning open for trade. The physician of to-day who has been taught and believes in preventive medicine, too often empirically accepts disease as an existing condition and treats it accordingly until alleviated or cured. This stage reached he considers his work done until called in again, upon his patient becoming ill, probably with the accumulation of impure air and unhygienic habits. This may be pecuniarily profitable to the medical man, and might warrant the ignorant to attribute our laches regarding prevention to be entirely toward this selfish end. This, however, would be very unjust. We must account for the customary neglect of hygiene by the fact that both preventive and curative medicine were hidden in darkness for thousands of years and, therefore, the conservative, cautious and wise physician, with a full realization of his ignorance, only interfered with nature when appealed to act by the appeals of an acute sufferer, thence the habit. To-day, this should not be so; we do not regard disease as a visitation of the Almighty God, inscrutable in character. We sufficiently understand many of the predisposing and exciting causes to guide our fellow man through life free from the heretofore unknown poisons to a much more satisfactory degree than some of our forefathers, who believed themselves capable of curbing the wrath of God by the administration of their empirical remedies. This good fortune of ours, however, comes to us from the fact that, in all ages of medicine, our profession has been besprinkled with ambitious minds, who have labored to discover the causes of ill health, and methods to prevent disease, and now the time has arrived for us to come to a full realization of what has been demonstrated regarding man's power to prevent disease and adopt as our motto *venienti occurrite morbo*, hasten to meet the coming disease. Those factors essential for prevention often prove essential for cure, which fact is not recognized by many of our practitioners. For instance we frequently know of a physician who is called in to see a patient; he correctly diagnosticates the case as one of typhoid fever, and then simply applies his knowledge of the healing art. Oftentimes with as little success as if he had been administering to a person with symptoms of lead poisoning, who was at the same time continuing the use of water impregnated with the poison. He seldom interests himself to investigate and remove the source of poison but frequently orders the patient on a milk diet, thereby giving him every few hours the very vehicle that first carried the poison. I conceive it, however, to be our duty to at once investigate the water, food and air supplies, and thereby cut of all external source of further poisoning.

The healing art and preventive science are part and parcel of each other. The cure of disease must be imbued with a preventive element. Scurvy certainly demonstrates this assertion to be true, as in the treatment of this pathological condition, we see the cure emerges directly and exclusively from the preventive treatment, and I have no doubt that as our knowledge increases this principle of physiological treatment as opposed to complicated and disturbing drugs will be more clearly recognized.

If some move to establish better hygienic conditions is not accomplished ere long, and our people taught to appreciate that education of the body is almost of equal value with culture of the mind, the bodies of our people will be starved, and the normal brain become morbid and inactive in the proper direction. The now great American nation will be forced to take a second place regarding health, ability and morality while she will rank high in immorality.

It is a sad mistake to centralize our attention upon the cultivation of the brain, as if it were a separate organism entirely independent of the physical body, and it depends upon our profession to form a public opinion favorable to a supply of pure air and physical exercise, particularly to the poorer classes; and this I exhort you to, as nothing else will maintain the high

standard in our future generations that has been handed down to us by our forefathers.

Fellow physicians, upon reform in sanitary matters, depends the future of this promising nation. Our government has its Secretary of State, of the Navy, of War, of Agriculture, of the Treasury, while the richest treasure of mankind—health, is absolutely ignored. Why do we not have a Secretary of Health. This is a disgrace to us as a people and indirectly a reflection upon our profession, for we undoubtedly have it in our power, if we would insist on our patients and their families paying more attention to sanitary matters.

Knowing, as a physician does, how important health is to human greatness and happiness, our efforts cannot be too great to maintain it. The present year is one of more than usual importance with the dire disease cholera close to our shores. Yet, with the individual exertion of every physician in this State to maintain cleanliness and to stimulate those trusted with quarantine, we should not only prevent the entrance and spread of the disease, but, faced by such an enemy, the legislators would be reminded of the vast importance of a good code of sanitary laws and vote liberal appropriations for the execution of the same.

The following words of the late Dr. Richardson should be ever kept in mind. "Cleanliness covers the whole field of sanitary labor. Cleanliness, that is purity of air; cleanliness, that is purity of water; cleanliness in and around the house; cleanliness of persons; cleanliness of dress; cleanliness of food and feeding; cleanliness in work; cleanliness in habits of the individual man and woman; cleanliness of life and conversation; purity of life, temperance, all these are in man's power."

"How small of all that human hearts endure,
That part which laws of kings can cause or cure,
Still to ourselves in every place consigned,
Our own felicity—we make or find."

CLINICAL LECTURES.

OVARIAN CYST AND UTERINE FIBROID—OPERATION—CURE.*

M. A. MANN, A.M., M.D.,†

Last week you saw in this clinic a woman with a large abdominal tumor. Her case was of historic interest, for upon her Dr. Julius Miner did his first successful ovariotomy.

Three years ago she consulted me with reference to another abdominal tumor which I advised her to leave untouched unless it began to trouble her. Recently she returned saying that the tumor had enlarged rapidly and last week you saw the examination made to learn her condition. There was a large ventral hernia covered, apparently, only by skin and peritoneum. Under the hernia was a hard tumor and behind that another larger mass which fluctuated. The diagnosis, therefore, was uterine fibroid and ovarian cyst, complicated with a ventral hernia. Six days ago I opened the abdomen and found the diagnosis correct. Immediately on incising the peritoneum, this large nodular fibroid presented. It was adherent to the bladder, which was drawn up and spread out upon the tumor. Both broad ligaments, particularly the left, were drawn up laterally over the tumor. The tumor was also attached to the cyst which lay posteriorly and to the right. The external incision was lengthened and the fibroid pulled out of the abdomen. I then tapped the ovarian cyst and emptied it of its contents, which were clear and of the consistency of diluted white of egg. Drawing out the collapsed cyst, I found it covered with a thin sheet of adhesions; these I tore away until the cyst was nearly free. It was then found to be quite

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firmly attached to the side of the uterus. These adhesions were tied with cat-gut and cut. This afforded a better opportunity to work at the fibroid. The opposite broad ligament was tied with very strong cat-gut and cut loose, a clamp holding the uterine end. Then after carefully dissecting the bladder from the fibroid I passed an elastic ligature around the cervix. The cervix, owing to the long continued traction from above, was drawn out to the length of two inches. The body of the uterus, including the fibroid tumor, was cut off above the elastic ligature, leaving a cup-like pedicle consisting of the upper portion of the cervix. Having secured this pedicle with a wire clamp, I next sewed the pedicle below the wire to the peritoneum in the lower part of the abdominal incision, after which I closed the abdominal wound. You remember that Dr. Miner attributed his success to the fact that he did not put any stitches through the peritoneum. I sewed the peritoneum very carefully with cat-gut and wire and I attribute my success to the fact that I did sew the perinoneum. What a change of views in the last few years. Of course, part of the stump must slough away and I made the closure of the peritoneum below it as perfect as possible so as to prevent the absorption of septic matter. The external portion of the stump was completely buried in a mixture of boric acid and iodoform and then the ordinary dressings were applied.

The patient has had some abdominal pain, due to the gas collecting in the intestine as is usual in such cases. She has done exceedingly well thus far, her temperature has never been above 100° and the pulse has ranged between 70° and 80°. Yesterday I took the clamp off, leaving the transfiction needle to hold the pedicle up until it sloughs away. The woman is now practically out of danger and when she gets up she will be free from the annoyance of the old hernia. I will not promise that she will not get another hernia at the seat of the pedicle, but this cannot be helped.

Later report. The patient recovered entirely.

ENDOMETRITIS.

This woman is 46. In her twenty-four years of married life she has had five children, the last fifteen years ago. She was weak after this labor though not more so than after the others, and she has been sickly all her life. Nine years ago she had an attack of terrible pains in the womb. The pain was almost constant but was made worse by passing water and the micturition was frequent and difficult, especially at night. This indicates an irritable condition of the bladder from some cause. She also had backache and pains in the sides, but more in the left than in the right. These aches and pains have continued to the present time. Her heart troubles her so much that she can get up stairs only with great difficulty. She is not able to wash nor to do other hard work simply on account of the fatigue occasioned. Her menstruation is regular, lasting three or four days usually and during two days she flows excessively. Two months ago she says she used fifteen napkins and some of them were simply dripping. Two years ago she had some minor operation performed which improved her condition for a time, but she is now as bad as ever again. She has leucorrhœa following menstruation; the flow is profuse and accompanied with pain.

Here is a history which points both to pelvic and cardiac disease. The series of symptoms forms a gradual progress from a condition of moderately fair to one of marked anæmia and prostration. From her attending physician, I learn that she has dilatation of the heart with mitral and aortic murmurs. From the history we can learn nothing as to the exact state of the patient's pelvic viscera. She loses a great deal of blood but we no not know why, whether from some malignant or benign growth of the uterus or some other condition. The pain of which she complains in the vicinity of the heart is probably due to intercostal neuralgia, which occurs in a large proportion of cases of ovarian disease. In order to ascertain the character of the pelvic lesion, I will make a physical examination. I find that at some one of her labors, perhaps the first, perhaps a later one, she has sustained a broad, almost complete laceration of the perineum. The tissues between the finger in the anus and the one in the vagina are very thin, since the perineal body is almost entirely destroyed. The parts are very sensitive. As the fin-

ger passes farther in, the cervix is found not to be in its normal position. It is higher and farther back than it should be. Like the perineum, it has sustained a laceration and the two lips are widely separated by a bilateral tear. I try next to discover the location of the uterus. The tissues in front are quite soft, proving that the uterine body is not there. Moreover the cervix points directly at the symphysis-pubis, which it could not do with the body of the uterus in its normal position unless the cervix were flexed in an extraordinary degree. By putting the finger behind the cervix, I find the body of the uterus there. The condition is not one of retroflexion nor is it the common one of retroversion with prolapse. The uterus is simply retroverted and it lies high in the pelvis. By sweeping the finger around in the lateral fornices, I try to ascertain if there is any foreign body present such as a tumor, a prolapsed ovary or an inflammatory exudate. There is nothing of the sort present. Pressing on the cervix, I test the mobility of the uterus. It is not quite as freely movable as it would be in its normal position but it is not fixed. You will notice that the use of either speculum or sound has been quite unnecessary. There is one other condition probably present, to judge from the history, but this could not be diagnosed without the use of an instrument, which it would not be proper to employ since the patient is going home immediately after the clinic. If I were to pass a curette into the uterus and gently scrape its wall, I should probably bring away a few granulations, and the removal would be followed by a slight discharge of blood. It is to a granular endometritis that I attribute the excessive menstrual flow, of which this patient complains. The uterus, also, is enlarged and, from the long-continued displacement and laceration, there has resulted a congestion which in course of time has caused the granular endometritis. There is also an endocervicitis, which accounts for the leucorrhœa occurring after each menstrual flow.

The woman has quite cause enough for her complaints of ill health. Is there any relation between the cardiac and the pelvic lesions? An organic heart disease of the severity of this one, prevents the blood from circulating freely and tends to back the blood up in the extremities and the pelvis. It is altogether probable, therefore, that the congestion and consequent enlargement of the uterus and endometritis are added to by the cardiac disease. In some cases of heart trouble there is severe menorrhagia as a direct result.

Now comes the question which is important for the woman. Can we relieve her? She can not, of course, be made entirely well, since the heart lesions are incurable. But we can improve her condition greatly by removing the abnormal pelvic condition. The ruptured perineum must be restored, the lacerated cervix must be served up, the uterus must be restored to its place and held there. The granular endometritis which probably exists must be treated by the curette. The mere scraping of the womb is not enough unless the other conditions are cured. I believe, also, that it is necessary to make intrauterine applications in order to cure the endometritis, having learned by experience that the curette is not sufficient. The heart lesion, while incurable, is not so unfavorable as many suppose. I see no reason why this woman cannot be restored to a moderate degree of health by treating her pelvic lesions and I do not think that the existence of the heart disease is a sufficient excuse for declining to give her a chance for whatever relief gynecology can afford.

The treatment of the endometrium can not be properly carried out by the ordinary cotton wrapped applicator. Such an applicator is useful enough in the treatment of cervical endometritis and it is not often that we have to go further than the depth of the cervical canal. Here, however, we must use an applicator syringe which resembles a hypodermic syringe with a very long metal or hard rubber nozzle, no larger than a uterine sound and provided with many small lateral openings. The barrel of the syringe holds about two cubic centimeters. The nozzle is wrapped evenly with cotton, dipped into an iodine solution and passed into the uterus. Most of the medicament is squeezed out of the cotton as the applicator passes through the internal os, but we can flood the cotton again by pressing on the piston. We do not really inject the fluid into the uterus, there is only enough of it to saturate the cotton. This is not routine treatment, it is only required in bad cases of menorrhagia due to corporeal

endometritis and after the uterus has been curetted. I presume I see two or three cases a year which need this treatment; but when they do occur, it is the only treatment which will yield satisfactory results. A great deal of disappointment would be saved both patients and physicians if it were more generally understood that curetting the uterus is not sufficient to cure a granular endometritis. Last winter I saw a case which had been curetted three or four times without benefit. I repeated the curetting, used the applicator syringe and the patient has remained perfectly well. In the treatment of these cases, I have found of late that the plan advocated by Dr. Polk gives very good results. He advises, after forcible dilatation of the uterus and curetting, that the uterus should be thoroughly packed with gauze, the object being to drain the uterus. He recommended the use of sublimated gauze, but, in my experience, this does not remain fresh for any length of time after its introduction into the uterine cavity. I have therefore substituted iodoform gauze, and with it have had better results. A practical advantage of this treatment is that after the first operation, the uterine canal remains for some time sufficiently patulous for the introduction of a narrow piece of gauze by means of an ordinary applicator. The gauze can, therefore, be renewed at the office. Some pain is caused at first but it soon subsides and the beneficial results of this method of treatment I have found to be very great. Although the after-treatment can be carried on at the office, I usually prefer to go to the house of the patient in order to allow her to rest in bed the remainder of the day or longer as may be indicated by the amount of pain. Before Dr. Polk published his method of treating these cases of endometritis, I had long sought a way of introducing iodoform into the uterus and I tried all sorts of plans, feeling sure that the treatment of the uterus on this line would cure many cases which resisted the older methods of treatment. I was glad, therefore, to learn of Dr. Polk's success.

The other conditions existing in this case, the lacerated cervix and the ruptured peritoneum must also be treated. The thorough treatment of the endometritis might result finally in a relapse if these other elements were ignored.

COMMUNICATIONS.

METHODS AND MATERIAL IN ABDOMINAL AND PELVIC SURGERY.

JOSEPH PRICE, M. D., PHILADELPHIA.

I realize how very fertile my theme is for discussion, and my familiarity with current medical and surgical opinion, the lessons of surgical experience and those derived from more or less intimate professional relationship with Fellows of the profession—all forewarn me that some of my opinions or conclusions may be called in question. The openings are many and wide for difference of opinion on many of the questions of our science and art. Ours is a great universe in which we are all pupils, gaining with a humiliating tardiness the lessons of our science. There is nothing we should welcome so heartily as that enlightened criticism which directs the way in correcting our errors. We are not so tied to our present ways of doing things that we will not welcome other and better ones. The responsibilities of our profession are too grave, our work, when wisely and skillfully done, too beneficent in its character for us to go on repeating errors. We are entitled to the lessons of each other's successes and failures, of repeated or new experiences, the facts evolved of research or experiment. There is no time when we are so happy in being at home as when our critics call—presumably they always have something for us. Fortunately these meetings of doctors cannot be designated as mutual love associations, where all is intellectual harmony—they are something more than festival occasions; they are an important part of the machinery of our medical and

surgical education. The spirit pervading them is one that animates the profession generally. It is a spirit that puts us to bed late and gets us up early.

Though our science is yet in its infancy, much of it has passed from mere speculation to practical and valuable use, and has multiplied the fields of our inquiry. The seeming spirit of innovation is largely a spirit of progress. New and powerful impulses are carrying forward the profession. Reverence for antiquated methods has lost its force. Our literature is being inspired by a spirit of enthusiastic inquiry and research. The earnest, thoughtful men of the profession are speaking through our conventions and medical journals, shaping and leading medical opinion, giving methods and results; and results of methods always constitute the chief element in any decision respecting their value. In all our work the one supreme concern is the result. By result in operative cases we mean something more than recovery from the operation. There is such a thing as lingering surgical deaths — post-operative sequela more to be dreaded than death.

While we honor the achievements of our pioneers, the men who have given impulse and direction to scientific investigation, and would emulate the purity of their examples and the tireless energy of their endeavors, we must claim many advances made by the bold inventive genius of the working physicians of our own period. We are not permitting our own ways to be numbered by the myths condemned by modern science, old superstitions and exploded theories. We accept only those facts as essential and vital which withstand the severest clinical tests.

The evidence of our advances may be found along the lines of every department of medicine and surgery. The advances in strictly medical science lies in the use of simples; our prescriptions have ceased to be pharmacutical inventories; there is less resort to specifics as curative agencies and more attention given to pure nutritive food, pure and fresh air, rigid, persistent and scrupulous general and personal cleanliness. All successful practitioners of general medicine will agree with Dr. Oliver Wendell Holmes that, "The disgrace of medicine has been that colossal system of self-deception, in obedience to which mines have been emptied of their cankering minerals, the vegetable kingdom robbed of all its noxious growths, the entrails of animals taxed for their impurities, the poison-bags of reptiles drained of their vemon, and all the inconceivable abominations thus obtained thrust down the throats of human beings suffering from some fault of organization, nourishment, or vital stimulation. Much as we have gained, we have not yet thoroughly shaken off the notion that poison is the natural food of disease as wholesome aliment is the support of health."

In every department of surgery the advances have been phenomenal. Experimental research, increased clinical knowledge, a better understanding of anatomical structures and their inter-relation and dependence, combined with our advanced pathological knowledge have combined to make possible brilliant surgical success—have placed surgery upon a scientific basis. Our modern surgical triumphs are not due so much to boldness of operative procedure as to the increased accuracy of our physiological and pathological knowledge, our improved technique, skill, care, scrupulousness and mastery of details. The most of us suffered from the inadequacy and inacuracy of our early pathological teaching. We were left much to learn and much to unlearn.

In gynecology much of the early work was experimental in character. Methods were tried and abandoned—and then again revived as new and original. In these claims to originality of method the author has sometimes been honest in his claim but ignorant of the history of the subject. Claims as to authorship and priority of method make some of our surgeons very unhappy. The truth is that it would be better for suffering women if the daddies of not a few of our surgical methods had been quietly chloroformed into the infinite glories in very early infancy, before they felt the embryo movements of inventive genius. The future will make more inquiry as to the results of our surgery than as to who devised or invented our methods. It is to be hoped that, as we go on clearing up uncertainties, all our present methods will be crowded out by better ones.

We will make brief reference to some of our methods or procedures, their wisdom or unwisdom, as their history im-

presses us, that more with the view and desire of eliciting discussion than with the view of presenting any thing new and original.

First, that of vaginal hysterectomy with diseased appendages. The procedure is a very imperfect one and dangerous in the hands of any one—no matter what their surgical experience and skill. The adhesions, omental and intestinal, commonly found in the removal of all adherent forms of disease, must be dealt with from above. The removal of the uterus is a simple matter, but dealing with complications above requires painstaking surgery to save the patients and to relieve them from primary and secondary complications, which are always serious. Hysterectomy for metritis and for prolapsus are unjustifiable procedures and are bound to bring legitimate work into bad repute.

Accidents in freeing or liberating all adhesions are to be avoided by hugging the tumor or cystoma closely in freeing adhesions. If the cyst or tumor is adherent to large vessels, kidney, ureter or liver, the adhesions are to be followed carefully in lines of cleavage. Large and small bowel adhesions are to be liberated with care, and both sides of the bowel inspected that all links and bands of adhesion may be freed and not permitted to remain sources of danger by constriction favoring acute or chronic obstruction. Hemorrhage is to be guarded against with care; it follows rude enucleation, hasty work, want of surgical knowledge, that which comes only of practical experience in the use of ligatures. Bulky vascular pedicles should be sub-divided, each ligature containing sufficient tissue for safe hæmostasis. The hemorrhage may not be free, but oozing or slight—favoring a large clot; this in a feeble patient not drained will result either in death or tedious convalescence, sometimes in suppuration and pyæmia. Of the numerous methods of dealing with the pedicle, many of which have fortunately been abandoned, that of ligature and cautery remain the most reliable and trustworthy. A retracted pedicle is one of the most unfavorable accidents in ovariotomy. It is to be treated by reopening and retying. If the operator is apprehensive of hemorrhage he should place his finger on the stump before tying the lower sutures. The drainage tube, if placed, will be a hemorrhage sentinel; if not placed he will have to rely upon the patient's pulse and color, counting the patient's pulse often and watching other symptoms so characteristic of hemorrhage. Applications and the administration of remedies will avail nothing. You must seek the retracted pedicle and offending vessels and tie. Peritonitis and Septicæmia are the two common causes of death after abdominal operations. Localized peritonitis is the most common cause of post-operative complications and pain.

In cases of peritonitis, whether due to infection through veins, lymph channels, perforating ulcers, suppurating appendicitis or dermoids, or any of the angry forms of intrapelvic or abdominal disease, the treatment should be prompt, radical and thorough—*seek the cause*—the abdomen once opened there should be no hesitation in removing it, whether it be appendix, dermoid, suppurating tubes or a section of intestine. Having removed the cause, thorough drainage of the unhealthy parts or surfaces will bring the patient around to restored health. In these cases salts performs an important office. Opium should be absolutely avoided—should at no time have a place in the treatment. There is nothing in our surgery so encouraging and comforting as to witness the subsidence of all alarming symptoms immediately upon the early removal of the source of infection—or a tumor ruptured, leaking or strangulated. We often hear men say that a patient is dying from general peritonitis and cannot be saved. This is absolutely an error. The *one saving method* of any variety of general peritonitis is abdominal section and flushing or irrigating with two or more pitchers of clean water—this is the only reliable treatment now known. It has been sufficiently tested in a large number of the most desperate cases, cases actually dying and beyond all hope from any other method of treatment. Opium, poultices and the let-alone treatment are *absolutely worthless* in such cases and never save life. The irrigation and drainage method of treatment saves many. Nothing has made me prouder of my own special work than my triumphs in the treatment of peritonitis.

Some of the operators condemning drainage, irrigation, etc., are in the habit of abandoning a class of complicated cases, claiming that they cannot free the

diseased appendages from the intestinal and other adhesions without risk or danger of fecal fistula. Surely their experience must be limited or they would recognize the great importance of completing these operations at any cost. Operators cannot avoid making holes while freeing fixed and disorganized bowel in the removal of suppurating tubes and ovaries, but they kill their patients by neglecting or overlooking such injuries; they should be repaired promptly and thoroughly and no *mischief will follow.* It should be planted and kept in mind that successful surgery means ceaseless vigilance, rigid, persistent, ceremonious attention to all details; there should be no such thing as indifference to minutiæ. It is the unnoted, neglected things that cause us trouble, that bring calamity to the patient. There should be thorough preparation of the patient for all intraperitoneal operations. About all patients suffering from inflammatory or suppurative forms of pelvic trouble carry loaded bowels, and it is simply surprising how very copious are the evacuations following the use of a saline, and the relief from all pain and the general comfort of the patient is so marked that she generally objects to operative interference. The thorough emptying of the bowels favors comfort and speedy convalescence, minimizes accidents and post-operative complications. Distention rarely follows an operation if the preparation has been complete and the operative toilet a thorough one. I have repeatedly completed one hundred sections without distention occurring in a single case. Drainage by purgation before operation in cases of acute or chronic suppurative forms of disease, and drainage by tube following operation invariably give a cool skin, a clean tongue, slow pulse; make a hopeful, cheerful and comfortable patient, with a total absence of uncontrollable restlessness, despondency, coated tongue, nausea, and all the uncomfortable conditions following the use of opium. In all important or major operations we should have one trained assistant, never many. There should be two trained nurses; they young and healthy, and by habit neat and cleanly of person and trained to military exactness and alertness in all their movements; they should be familiar with the operator's idiocyncracies. In a private hospital more care can be exercised in the choice of a nurse for a particular case than in private practice; for instance in a hospital the choice of a nurse not menstruating can easily be made, where, in the case, the use of at drain tube is probable.

The temperature of the patient is to be looked after before, during and after the operation; damp, cold rooms and corridors are to be avoided; it is important to use warm, dry blankets during and after operation. An operating table made of manifold coils of steam pipe is a simple and perfect way of treating shock. This complex question of shock I will not attempt to discuss here. For the gynecologist one important subject of consideration is anæsthesia. When we consider its importance to refined and successful surgery we must acknowledge that we are by no means giving it the attention it deserves. As a rule anæsthetics are prolonged by necessity in gynecological operations, the operations are much longer than in general operations. The resection of bowel takes more time than that of a joint; the removal of a large fibroid more time than the amputation of a limb. In general surgery the steps of the operation can be anticipated, they are well defined and understood before its commencement; in abdominal section we can in no case see into what any given operation will eventually lead; some are simple, others bristle with difficulties and complications, and in feeble subjects the difficulties and risks are multiplied both for the surgeon and the anæsthetizer. Shock more commonly follows abdominal operations occasioned by exposure and manipulation of abdominal viscera. A number suffer from a variety of shock due to peritonitis following leakage, rupture of twisted pedicle, or the hemorrhage of a ruptured tubal pregnancy. The depressent action of chloroform is so marked and often alarming that many of us hesitate to use it at all, while ether can be given with greater safety, less depression and with a mortality of four per cent. in its favor. It matters not to the gynecologist how chloroform kills. Whether through the heart or some other organ, it certainly does kill quickly and in a way that baffles all preventable effort. Unnecessarily prolonged anæsthesia are to be condemned. Faulty methods of administration in the

hands of men with little or no experience as anæsthetists are also to be condemned. Irritation of kidneys and lungs and nausea can all be largely avoided. Nephritis has never followed the use of ether in my work. All the sequelæ of ether can be kept within bounds of safety if men will only take the care to study the art of its use. The jackknife or rule-of-thumb methods of the young novitiate or house-surgeon are not methods by which the value or relative merits of an anæsthetic are to be tested. Many of the drawbacks with which ether is credited is due to lack of knowledge and skill in its administration.

I would here enter an earnest protest against the rude, often rough handling of patients by physicians. A woman, and she weak, delicate and suffering from disease, sensitive to slightest touch, should not be handled as a Milwaukee brewer would a keg of Western beverage, or a Kentuckean a package of "Fine old Bourbon." It should be understood that she does not need shaking up. For more than ten years I have followed the practice of personally taking the patient from the operating table and placing her in bed. I am satisfied much mischief is done by some of the thoughtless and rude methods of handling patients after operation.

Physicians and nurses would find entertaining and profitable reading in that delightful little book—"Rab and His Friends," written by Dr. John Brown of Edinburgh, Scotland. He invests the illiterate, rude, rough handed cartman with the delicacy, sympathy and thoughtfulness which should govern in our dealing with patients. "Had Solomon, in all his glory, been handing down the Queen of Sheba at his palace gate, he could not have done it more daintily, more tenderly, more like a gentleman, than did James the Howgate Carrier, when he lifted down Ailie his wife."

All operators should have an accurate knowledge of his materials. Only mischief and imperfect work can follow the use of large, coarse silk. Accidents, hemorrhage, abscesses, fistulæ and a variety of post-operative sequelæ follow its use, as they do also the use of bad qualities of cat-gut. Pure, fine silk, well placed is rarely followed by any trouble. Cat-gut is an uncertain and unreliable material as found in the shops. Some of the older operators who carefully select and prepare their own cat-gut have excellent results with few accidents, but they forget while recommending and urging its use that they are placing uncertain material in very many instances in the hands of beginners, some of whom know little about placing a ligature of any character. The law of practice should be with all teachers, both as to method and material to teach the use only of that method and material which in the hands of beginners will do the least harm, is all-around the safest and promises the best results. A number of patients have been lost by hemorrhage alone through the use of cat-gut. In all intra-abdominal work it matters but little what you take out of the abdomen in the shape of abdominal growths, if it is done thoroughly and quickly; but it is of serious concern, matters very much as to what you take in and leave in. The question has been asked why is silk so persistently used. The answer is a very simple one and should be a satisfactory one. The most of our operators have given all kinds of material a fair trial. The results the world over have been the best with silk. Long before the modern *pioneer advocates* of cat-gut championed its use here in America it had been tried thoroughly both in America and Europe and rejected as an unsafe and unreliable material. One of our young American operators says: "silk is a nuisance." He should give it a prolonged trial.

Great care should be exercised in the choice of silk; it should be pure, strong and clean and used in the smallest possible quantity. The range of abdominal and pelvic surgery will never again be confined within their narrow lines, its field restricted to a limited class of cases and to a small number of operations.

Gynecologists are not limiting their study to any one organ. They welcome the advances of the practitioner; recognize that there is nothing met with by the specialist that is not met with by the general practitioner, and that the same sound sense that determines the trouble will suggest the remedy. The reproach from which all surgery has suffered, especially abdominal and pelvic surgery, has been almost entirely due to the blundering work of many who attempted work for which they had no special training.

The fact that the abdomen has been opened many times when it should have been left closed; that there have been many obvious errors in surgery is a weak argument against the surgery of men who have devoted time, money and every energy in equipping themselves for their work, who do conscientious, complete thorough and successful work. It is with great pride we can point to some of our own countrymen as standing in the fore ranks of the profession contending with the courage of veterans for its advance. We have in our midst one who has contributed as much as any man living or dead to our advances. I refer to Nicholas Senn, of Milwaukee. With what pride we find distinguished English brothers paying tribute to his work. There is high and deserved tribute in the following from an eminent English Surgeon:

"It is due to Professor Senn, of Milwaukee, that intestinal surgery, from being one of the most fatal departments in surgery, may now be ranked among the most successful, and as time and experience progresses, we may look for most brilliant results, not to be eclipsed even by those of the ovariotomist. Senn's method, which I had the honor of first bringing prominently before the profession in this country (England) proved so successful in the experimental research I made some two years ago, that I have never ceased to impress the importance of his suggestions before the profession." While our country produces such men our profession cannot retrograde.

SOME REPORTS OF THE EPIDEMIC OF CHOLERA OF 1892 IN CITY HOSPITALS OF ALTOONA, PRUSSIA.*

DR. A. HERBST.

The source of infection originated in Hamburg, seventy-five per cent. of this was chiefly carried by the laboring class employed in Hamburg and living in Altoona; the remaining twenty-five per cent. was not so easily accounted for, fifteen per cent., in all probability, having originated in or about the port of Altoona. The suspicion was aroused that the Elbe had been the means of conveying the scourge to both cities, either by the ingestion of the water or by those occupied at the river front, thus coming immediately in contact with the infected water. A few cases will be sufficient to show the possibility of such infection.

CASE I. A sailor, enjoying previous good health and of good habits, drank, on the evening of the 23rd, 8 month, a large quantity of water immediately taken from the Elbe, in spite of being prohibited by the authorities on the ship, and on the morning of the 24th he sickened, growing rapidly worse. The afternoon of the same day he was taken to the hospital in the third stage of cholera and a few hours later died. The author cites four more cases quite as typical, the infection being distinctly traced to the ingestion of fresh unboiled Elbe water, and states that he could continue indefinitely, giving proof of the same kind. The typical aspect of grave cholera cases will never be forgotten after once having seen them. The patient who only a few hours previously attended to his duties, lies before you unable to move, the eyes deeply sunken, their lids partially closed, the eyeballs rolled upward, the nasal and cheek bones sharply defined, the skin extremely pale, frequently covered with cyanotic spots of a light or darker blue color, often fading into grayish tints. The integument at times is absolutely dry and at other times covered with a cold, clamy sweat. Its elasticity is gone; folds pinched up, remain stationary. The pulse at time of admission to hospital is often deceptive, the heart's action being somewhat excited during transportation. Some minutes of rest will show the pulse to be almost imperceptible. Others were admitted entirely pulseless; the respirations were slow and superficial; the temperature taken per rectum was frequently subnormal; the extremities

* Abstracted for MEDICAL AND SURGICAL REPORTER by Dr. M. B. Werner.

were ice cold to touch; a peculiar indescribable odor surrounded the patient, which may be described as "fœtor cholericus." This odor is also present in the cholera cultures to a lesser degree. If the patient was able to speak, his voice was hoarse, thick, sometimes without sound; this may be termed "vox cholerica." Sometimes before the patient reached the bed the vomiting and diarrhœa began—the oft described rice water discharges peculiar to Asiatic cholera—and almost immediately after the patient was seized with painful cramps in the calves of the legs and muscles of the fingers. Some of our patients complained of great pain under the border of the ribs which radiated in all directions. This was probably due to the dyspnœa and the exertions of continued vomiting. The intense thirst is of the most characteristic symptoms, the patient drinking all that is presented, only to vomit it the next minute. The great loss of water from the system reduces blood pressure and consequently the secretion of urine becomes diminished, so that only a few drops can be voided at a time.

Of importance, according to the experience of the author, are the symptoms referred to of sight and hearing; the conjunctiva and sclera are markedly injected, often amounting to hemorrhage from the subconjunctival vessels; the conjunctiva itself is dry, dull and often presents small ulcerations. The patient complains of burning pain in the eyes. In grave cases, even before death, gangrenous patches are noticed on the sclera and cornea. These spread rapidly after death. The sight was not disturbed except in a few cases, who complained of darkness before the eyes, in two others there was double vision. The symptoms referring to hearing were equally characteristic. A large majority complained of intense tinitus aurium first in the right, then in the left, and then in both ears; others complained of deafness, as though the membrane had been placed over the ear.

The author proposes two explanations for these symptoms:

First—due to thickening of the blood and therefore lessening the circulation; the other due to nervous symptoms arising from the intoxication of the cholera poison.

Regarding the *temperature*; in grave cases the temperature is usually subnormal. This fails to correspond with the cholera epidemic at Hamburg, 1873, where some cases were reported to be without fever, while in others, the temperature rose to 42° Cent. There had also been recorded a difference of between 2° to 3°, if taken in the rectum or the axilla.

The author records in the first 138 cases only 16 in whom the temperature was beyond 37°, taken usually on the same day of admission; 38° was met with in four cases; in all others the temperature was below 37°, quite often as low as 32°, or 31°. In 238 cases there was about 15 per cent. in which the temperature was not over 38°, in 5 cases it reached 39°, but not over 39.6°; of 16 cases the axillary temperature was over 37°, 9 of these recovered; of 35 patients, whose temperature, taken in the rectum, was over 38°, 21 recovered.

Cause of the disease.—The severity of the attack usually lasts some hours, less often days. Its course may be more rapid from the fact of the great loss of water and the subsequent reduction of temperature rather than the intoxication of the poison; heart failure and exhaustion usually proceeding death.

An improvement due at first to the natural resistance and aided by well directed treatment, will often give way to the secondary stages of cholera infection, in which the patient often passes into a comatose state, known as cholera typhoid. The face may be deep red, shining, though the patient may be snoring. When roused the speech is slow, the words scarcely articulate; the lips, tongue and gums are dry, the sordes collecting in the mouth, the head bent back, the eyeballs rolled upward. Examination of the internal organs seldom reveals pathological conditions, only occasionally mucous rales are heard. The heart's action is good, the pulse full, bounding but not dichrotic, the liver and spleen are not enlarged, the temperature at times rapidly increased from sub-normal to 39° or 40.° In most cases, however, it remained below normal. The diarrhoea during this stage ceased entirely in some patients.

The delirious patients frequently allowed their discharges to pass into the bed. Vomiting ceased during this stage. The most unfavorable prognostic sign is the condition of the kidneys.

Recovery was usually of two forms—First, in which it set in immediately after

diarrhœa and vomiting had ceased, the temperature and pulse returning to the normal. In the second group of cases the stage of reaction was ushered in by a rise of temperature, the face reddened and the patient complained of heavy and internal heat. A careful examination of the internal organs gave negative results. The temperature and accompanying symptoms usually lasted from eight to ten days. Among the *complications* are alcoholism and its results, delirium tremens, we have no less than twelve cases or three per cent. of decided delirium tremens; of this number ten died.

Pregnancy was present in five patients, in three abortion took place, and soon after, death. In a fourth the patient died before abortion; the fifth did not abort, and she recovered; the last was in the fifth month, the fourth case was in the fourth month, the first three were in the third month.

The *sequelæ*—Recovery is often accompanied by painful inflammatory swellings of the extremities, which may form abscesses; these have been treated successfully by moist carbolic and boric acid applications. These peculiar infiltrations were noticed in thirty patients, particularly in those who had received numerous subcutaneous camphor or ether injections. As a result of the cholera infection there was noticed an exanthematous rash, much like measles or urticaria, which suddenly disappeared; of the patients on whom this rash was noticed all recovered.

In two cases there was infiltration of the joints, probably aided by articular rheumatism; one patient complained of sleeplessness during convalescence.

The *treatment* consists first in the extirmination of the bacteria; second in eleminating the toxin from the system, and supplying the loss of water. The first indicated were antiseptic liquids given by mouth; the creolin, so highly recommended at first was used twice daily in five gram doses in hot tea, but was found not only to be inefficient but dangerous, since its unpleasant taste usually excites vomiting, or at least a burning in the throat and eructations.

Toxic symptoms were not noticed after the use of this drug; capsules of creasor were also ineffective; salol was also used with negative results; lactic acid and hydrochloric acid were also used without benefit; opium was of little or no use. There remained but two remedies, calomel and tannin. In cases of a milder type in which the pulse was strong, 0.5 of calomel was given two to three times within the first two hours, followed by 0.05 gram every two hours, stopping the remedy at the end of two days.

A one per cent. solution of tannic acid, at a temperature of 38° to 40° as recommended by Cantani, the enteroklysis, per rectum, was used, injecting as much as the bowel could hold, the patient being placed in the knee chest position; this was performed every three hours. It was rejected frequently, but found to contain large quantities of comma baccilli. Some patients complained of the taste of tannin, which, however, was favorable, in that it showed the injection had passed the ileo cæcal valve. 202 patients were treated with these injections, 100 of these recovered. It is important to remember that a number of those died who had been brought in the last stages of the disease and had received one or two injections ante mortem, but had been beyond human reach on admission; calomel and tannin used at once, gives the best results, forty having been treated in this manner with twenty-eight recoveries. The cholera poison paralyzes the nerve centres, particularly those of heat production and the vaso motor system. The loss of water produces a thickening of the blood, interferes with the circulation and oxygenation, hence the necessity for a rapid action upon the circulation, which in turn will thin the blood. This can be done by the intra-venous and subcutaneous infusion of liquids.

The former was performed by Prof. Rumpf, of Hamburg, who stated that the hyperdermic use of salt solution gave less desirable results than the intravenous injections.

The author, however, does not coincide with Prof. Kumpf, since, on the whole, twenty patients having been treated with intra-venous injections using the vena mediana, the method was unsuccessful, all the patients having died. One patient in particular having received five injections at different times; the immediate result after each injection being very encouaging, this lasted, however, only fifteen

minutes, and the collapse became greater than before, until at last death ended the scene. Another case brought in pulseless received a subcutaneous injection of 600 cubic centimetres of the physiological saline solution into the thigh. A few hours later there seemed to have been but little absorption of the fluid and the pulse scarcely perceptible; 800 centimetres were injected into the vein, the pulse remaining the same, the condition of the patient hopeless. On the evening of the same day 1000 cubic centimetres were injected into the abdominal walls, in the morning the fluid had all been absorbed, the pulse could be easily felt; the camphor injections were then given every ten minutes, this aided materially towards improvement. The patient was able to speak, her condition being markedly improved. The author never noticed any thing more than a slight redness over the seat of injection; the infiltration caused usually subsided in a few days. About 350 such subcutaneous infusions were administered to 215 patients, of whom 66 recovered.

Under the head of symptomatic indications the author mentions woolen blankets, warm bottles, hot cloths, rubbing the extremities, etc., as means to raise the temperature; internally the administration of hot wine, coffee or tea; the subcutaneous injections of camphor, if necessary, as often as every 10 minutes; sulphuric ether frequently produces abscesses and, being generally painful, was not used.

Hot baths, temperature from 28° to 35°, more often failed, collapse setting in instead of the excitation and warmth mentioned by others. The cramps in the muscles were treated by hypodermic injections of morphia, often in large doses, bearing in mind the possible paralyzing action upon the heart; vomiting frequently ceased after the injection. The nourishment, as long as the diarrhœa kept up, consisted chiefly in oatmeal gruel, to which was added some red wine. The author was as helpless in treating the uræmic symptoms as others had been.—*Müch. Med. Wochen.* No. 3 and 4, 1893.

A CASE OF PNEUMONIA WITH REMARKS.

E. J. KEMPF, M. D., Jasper, Md.

I am five feet ten inches in height, 150 lbs in weight; am a dark blonde and have gray eyes; am thirty-five years old; a physician. I am of a nervous temperament. I am subject to urticaria, sick-headache, neuralgic pains in the shoulder-blades, and to bilious attacks. I am used to an outdoor life. I do not smoke or chew tobacco. I have always been a moderate drinker, never an abstainer. I am inclined to worry.

For several weeks in December, 1891, I had been complaining of a simple bronchitis accompanied by symptoms of an indefinite nature, such as a feeling of general malaise, biliousness, constipation, headache, lose of appetite, and nasal catarrh.

On my way home from a professional call into the country I had a chill, and I felt as if my left lung was not all right. I could not use it freely. I stopped at a country saloon and got me a whiskey with which I took ten grains of quinine. This quickly took effect and I felt better.

That night, December 22, I did not sleep a wink, and I sweat until the bedding was soaked with perspiration. The next morning my temperature was 99°F. I dried myself, dressed, got up, and attended a patient in my office. I then went to the well and drank a pint of cool water. I noticed that the water was unusually cool and nice. I also noticed that the things on the breakfast table looked absolutely sickening, so much so that I had to go out of the room. I now came to the conclusion that I was really sick. The sputum was rusty, and my side felt as if it had a board in it. During the day I took ten grains of blue mass, ten grains of quinine, and five grains of hyoscyamus extract. I urinated with difficulty, and urine being as red as sassafras-tea. During the night I sweat profusely as I lay awake counting the ticking of the clock, and wondering when the morning would come.

In the morning I got up. No sooner was I in the erect posture, than I was attacked with a severe stitch in the side. No pen can describe the severity of that pain. I gasped for breath, and I held my side, until the pain let up a little. Then I sat on the floor, mainly because I knew that if I sat on the floor I could not fall. I told my wife, that, at last, I had to give up, and that she would have to send for some one else to help her in her trouble; she was in labor.

Up to this time I had fought back the sickness, but it had finally overpowered me. By-and-by Dr. J. A. Salb came and attended my wife. He inquired about me, and after making an examination of my chest and of the sputum, he said, "yes, you have pneumonia." That night I took ten grains of quinine and ten grains of Dover powder, and sweated and counted the ticking of the clock as on the previous nights.

In the morning I could not urinate, and I tried to pass a catheter myself but failed because the urethra was very sensitive. Dr. Salb called on me, and found, so he said, my pulse good, temperature 104°, tongue coated and full of small herpetic blisters which were quite painful. He catheterized me, gave me a hypodermic injection of morphine and atrophine for the pain in my side, and directed the nurse to give me a saline cathartic. During the day I took five grains of quinine and ten grains of antipyrine alternately every three hours. Toward noon the saline caused me some griping, and I ordered my nurse to mix four ounces of glycerine, four ounces of epsom salts and a pint of warm water, which I injected in my rectum with the most ultra effects. For the next half hour I became a raving maniac. After it was all over I fell into the bed completely exhausted. Nevertheless, the severe purging I had undergone seemed to make me feel very much better. The catheter had to be used twice a day, morphine and atropine were injected into my side about every six hours to ease the pain. A blister was put to my chest, followed by the application of dry poultices. Dry cups were applied to my back.

The nurse, Mrs. Gutgsell, was to my aching eyes and weary limbs kindness itself. For the next two weeks she and I did not part company.

For fourteen days and nights I could not sleep, that is as far as I know. During this time I lived over my whole life-infancy, childhood, youth, school days, and college days. I was back again in past experiences. Time was no object and I was soon in the present. I travelled over the United States from end to end; over the Pacific Ocean landing in Asia; through India, over Asia into Africa; through the wilds of Africa shooting lions and elephants and stealing negroes whom I sold to the Turks; next into Palestine and then throughout Europe back again to America. The ordinary modes of travel were no longer good enough. The doctor put me and my nurse into a pneumatic tube and away we flew. In this way we visited not only every country, but also every city and hamlet on the globe. This too no longer suited my very active mind, and I now hired me a star. On top of it, my nurse and I flew through the universe. Millions of miles were passed in a flash, uncountable worlds were visited, unspeakable scenes and non-describable scenery were looked upon, and untold millions of people on never-ending streets were met. The mountains were miles high, the valleys immense, filled with beautiful cities. Just imagine a street a million miles long with a row of houses on each side, of all sizes and shapes, all built of marble, granite, silver, and gold, lighted with electricity, and embellished in every fantastic way.

And then with a start that made the bed crack I was back in the room. The pictures on the wall glared at me, the wall-paper was a mass of living, moving creatures. Little Brownies were everywhere. They crawled into the medicine-bottles and crawled out again, making grimaces at me. If I shut my eyes a perpetual panorama passed before me, if I opened them everything took shape and action. I felt as if my room was in some cave, as if the earth were in some unaccountable way pressing down upon the room. I knew every body, understood every word or whisper of the nurse or the doctor or the visitor, and heard every noise in the house.

I often think over these things I here narrate, and on no condition would I efface these, to me, actual experiences from my memory.

As soon as the crisis came and resolution commenced I felt some relief. I

could now sleep a few hours at a time by taking fifteen grain doses of chloral hydrate. A sa tonic I took syrupiodide of iron and syrup of the hypophosphites, and also tincture of nux vomica and the compound tincture of gentian. I also had my chest painted once a day with tincture of iodine, and must say this felt grateful. I took malted milk in hot coffee, and a glass of hot milk occasionally.

It was several months before I could resume my practice.

Remarks. During a practice of fifteen years in this country, I have met with many cases of pneumonia, at all seasons of the year. The bulk of the cases occur during the winter and spring months. Cases occur in groups, that is, if a doctor got a case of pneumonia, others generally followed. Cases occur after a north-east wind, especially if accompanied by a few rainy days. Cases occur in people who expose themselves to inclement weather, whilst suffering from some temporary indisposition.

Cases occur in families. My father and my grandfather died of the disease, I had it once, three of my boys have had it. In my experience as a life-insurance examiner, I found that where one of the parents, or grandparents had died of pneumonia, another had died of puerperal fever, or erysipelas, or meningitis, or chronic bronchitis, or typhoid fever, showing a predisposition to these diseases. Frequently have I treated erysipelas in people just convalescing from pneumonia, and more rarely has pneumonia been a sequel to erysipelas. Statistics show that puerperal fevers occur more frequently in the months of February and March, during the time that pneumonias are prevalent in the land.

If you have a patient suffering from chills and fever, or ague, or malaria, more than likely he will have pneumonia later on. If you know of a person suffering financial reverses, or burdened with some sorrow or trouble, watch for pneumonia as one of the diseases most likely to occur.

Persons, who in infancy have infantile eczema, who later on suffer from urticaria, boils, herpes, headache, vague pains, rheumatism, erysipelas, lumbago, sciatica, bilious attacks, indigestion, neurasthenia, or "the blues," all are liable to pneumonia, and they are generally bad cases.

Pneumonia never occurs in a healthy person. The disease is preceded by a period of ill-health. The patient is constipated, because the liver, stomach, and intestines are inactive. The kidneys are overcharged with work and become clogged. The urine becomes high-colored and full of uric acid. The blood is changed and is filled with battling pneumococci and white corpuscles. The brain suffers and so also the nervous system. I sometimes have thought that future medicine will class pneumonia as one of the neuroses.

Nevertheless, pneumonia is a specific fever, self-limited, but not to be cut short. It occurs in persons predisposed to the disease. The disease itself seems to be a crisis which the system undergoes, and the system acquires an impunity to the disease for a longer or a shorter time. But those who have the disease once can make up their minds for another attack. Not because an attack predisposes the system to another attack, but because the condition of the system makes it a fertile soil for the pneumococci.

Though pneumonia cannot be cut short, it can be prevented. How? Let those predisposed to the disease, regulate their mode of life, regulate their diet, abstain from alcoholic liquor and tobacco, wear flannel next to their skin, avoid the taking of colds; above all, throw care and worry to the dogs.

Remember that, in uncomplicated pneumonia, the heart is not diseased. It is the blood and the nervous system that is out of fix. And all the organs, excretory as well as the lung and heart, are suffering.

The question is whether the liver and the kidneys are often not as badly clogged as the lungs. Have you seen cases of pneumonia complicated with swellings of the parotid and other glands? Such cases were to my mind like those of metastasis in mumps. In such cases the kidneys act very poorly, and the disease generally ends fatally.

As to *treatment*, it is well to commence a case of pneumonia with small doses of calomel or blue mass, afterwards to be followed by an occasional saline. Quinine can then be given because it seems to do good in all cases, especially where there has been malaria in the case. Opium is useful as an anodyne, and it seems to limit the amount of hepatization in the

lungs if it is cautiously used. Morphine and atropine hypodermically used is a specific for the stitch in the side, whether due to a pleurodynia or a local pleuritis. Whether digitalis does any good in pneumonia I am not prepared to say, but I think we have other remedies that will do more good if the heart needs stimulating. Alcohol, and carbonate of ammonia, nitroglycerine, strychnia, cactus, all are safer and more reliable. In cases of irregular heart with inaction of the kidneys, digitalis may do good and should be tried. In the earlier stages, where the fever is high, antipyrine or aconite cautiously used may be of service, but I am fully convinced that baths, either the sponge-bath or the wet-pack, should be preferred. In the later stages, muriate of ammonia and iodide of potash with the bitter tonics and the iron preparations and good food, all may aid in hastening the recovery of the patient.

But remember we have no specifics for pneumonia. Each case must be treated by itself. Treat the symptoms and trust to good nursing. As to feeding, I am fully convinced that pneumonia is not one of the fevers that should be fed. The intense disgust for any and all food, which accompanies the earlier stages of the disease, and which must be experienced to be fully appreciated, should be respected. A little water given often, and a little milk, and alcohol if needed, is all the food that I give my patients in the first two stages of pneumonia. During the later stages and when the appetite returns, give your patient easily digested food. Malted milk is one of the best I am acquainted with.

Locally, I use mustard plasters or blisters in adults in the commencement and poultices later on. In children I direct the local application of turpentine liniment and cotton-pads. To aid resolution I often apply tincture iodine or dry cups to the chest.

I pay particular attention to having the room well ventilated, always at a temperature between 65° and 70°F., and to have some steam in the room to keep the air from being too dry. I keep the room quiet, and insist upon constant attendance by a nurse.

In conclusion I would remind the reader that this is not a treatise on pneumonia, for such I refer you to the text-books, but it is a plain expression of some simple ideas and experiences of mine with this interesting and important malady.

SOCIETY REPORTS.

THE MEDICO-CHIRURGICAL SOCIETY OF LOUISVILLE.

Stated Meeting, April 7th, 1893.

THE PRESIDENT, Dr. F. C. Simpson, in the Chair.

UTERINE POLYP.

DR. W. O. ROBERTS: Day before yesterday a lady sent her husband to my office to ask me to send her a pessary to hold up her uterus which was out of place. The woman is fifty-two years of age, very large and fleshy, and never had any children. I told the husband that I could not do anything without first examining the case thoroughly. He sent for me to-day. I found protruding about a half inch from the vulva, a polyp that seemed about as large as my thumb. The dedicle extended up into the neck of the uterus. I removed the growth after ligating the pedicle, and present the specimen for your examination. The patient thought it was her womb.

It calls to my mind a case which I had some time ago. A young woman who had been a widow for several years, consulted me and said that she had not had her period for a little over six weeks; shortly after that I was sent for and found her flooding. By digital examination I found what I took to be the membranes protruding. I grasped the mass firmly

with my fingers and tried to pull it out but it would not come. I inserted a tampon to stop the hemorrage and the next day I found the substance protruding still further. I made a more careful examination and discovered that, instead of a miscarriage, it was a polyp trying to get out of the uterus. The woman was having regular labor pains and at first I felt satisfied that it was a miscarriage.

ENLARGEMENT OF CERVIX DURING PREGNANCY.

DR. J. G. CECIL: Dr. Robert's remarks recall to mind a case that I saw last year at the University clinic; while it was not a polyp, it was one of those peculiar freaks of nature which we sometimes meet and which, for a while, keeps us guessing as to what it is. It was an enormous enlargement of the cervix with the woman pregnant five months. The cervix was so enormously elongated and enlarged that it had prolapsed until there was a tumor fully as large as a man's fist resting outside the vulva. At first I thought it was a sub-mucous fibroid which had been extruded by contraction of the uterus and was being retained by the pediele. An examination of the part that was resting on the vulva revealed a hole in the lower part of it which would easily admit the full length of the finger. I introduced a sound into this opening very carefully, not suspecting at the time that the woman was pregnant, when to my surprise the sound entered seven or eight inches. The tumor was very much ulcerated, discharging a foul pus. She was walking about with this prolapsed cervix outside. I replaced it by putting her in the knee-chest position, greasing the tumor with vaseline and then making pressure upon it reducing it in size until it slipped back. I then applied a tampon and sent her to the hospital. Up to this time I had not made up my mind fully as to the nature of this tumor, because I could easily discover a tumor above which had especially the appearance of the womb, and I could also ascertain a direct connection between this tumor which was outside the vulva and the womb, for I could probe it to the depth of seven or eight inches; I was somewhat puzzled as to what it could be. After it was retained in position for a while and had reduced very much in size, an abortion came on which demonstrated the facts that the woman had been pregnant for five or six months; that the child had been dead for probably a week or more, being much macerated and decomposed. It was a peculiar case and one that might easily be mistaken for almost anything, but under conservative treatment, watching it and waiting for developments as to what it could be, the case turned out very well for all parties concerned. It is simply one of those oddities which we occasionally meet in shape of tumors coming from the vagina, resting in the vagina or being directly connected with it

TUBERCULOUS KNEE JOINT—AMPUTATION.

DR. W. L. RODMAN: This specimen was taken from a young man twenty-seven years of age, who gave the history of tuberculous disease of the knee joint for the past eighteen or twenty years. Examining the limb very carefully, I noticed that there was at least two to two and one-half inches shortening of the leg and altogether it looked a very unfavorable case for resection. I sent him to the Norton Infirmary with the full understanding on his part that a resection would be done, but if the bone was found to be involved to any great extent we would amputate his leg at about the lower third of the thigh. An incision was made and the joint resected. As we expected we found a large abscess cavity in the inner condyle of the tibia; also one in the inner condyle of the femur. These abscess cavities extended deeply into the bones; the one in the inner depression of the tibia extended down to the medullary canal, communicating with it; the one in the femur extending up at least 1½ inches. We decided that it would be jeopardizing the patient's life to an unwarranted extent to attempt resection and, even if we succeeded in saving his life, we could not give him a useful limb, so the member was removed just above the knee. I present the specimen to show the abscess cavities in the lower end of the femur and upper end of the tibia.

Resections of the knee joint do not do any too well at the best, and I think anything else but amputation in this case was out of question. There were a number of fistulous openings, two or three of which were discharging at the time. The patient has done very well since the operation, eight days ago.

DISCUSSION.

DR. C. SKINNER: I saw the case with Dr. Rodman before the operation, and had the pleasure of seeing the operation performed. There were two or three features in the case that to my mind opposed resection. In the first place the poor limb that you get at that age, and the risk you run in any resection; further the extreme shortness of the tibia made it unreasonable to suppose a good limb would be obtained by resection. Although the man was twenty-seven years of age he had a tibia of about nine or ten years; there was at least two and one-half to three inches shortening of the limb existing which would have made the shortening at least four inches after resection. Artificial limbs are so well made now that I think they are of more service than limbs so short as this one would have been after resection. We were surprised at the depth of the abscess cavities in the bone at the time of the operation, but were not at all surprised to find the accumulation of pus.

DR. W. O. ROBERTS: I operated on a case something similar to this a few days before Dr. Rodman operated. The patient was a girl in this city who had suppurative disease of the joints since childhood. The tibia in her case was nearly four inches shorter than that of the sound side, still she had been able to be around with the aid of two canes. I simply did an amputation without making any attempt to resect. In the case operated upon by Dr. Rodman I do not see any other course that could have been pursued. I do not think it is necessary to attempt in these cases to save the limb, especially where the bone has become involved to the extent that this specimen shows. As a rule resections do not do any good where it is necessary to take off much bone. In young subjects, of course, we are wery careful not to do resections where there is disease of the bone itself, because if we take off much bone the limb ceases to grow. Although this man had probably gotten his growth, owing to the extent of the bone involvment there was really no other course to pursue except amputation.

I operated at the Norton Infirmary last fall upon a man sixty years of age, who had an osteo-myelitis; after twice sawing off the bone I still found the medullary canal diseased, and with a spoon I scraped it out clear up to the upper end of the bone, then introduced a drainage tube. He got along beautifully and now has a stump on which he can use an artificia limb.

CHOLECYSTOTOMY.

DR. A. M. VANCE: Nine days ago I was called to see a woman fifty-seven years of age, with the statement that Dr. Dugan had been called the day before and had told her that she had appendicitis. I made a careful examination of the woman and came to the same conclusion. There was quite a tumor in the region of the appendix, extending well down into the pelvis, very sensitive, particularly at a point midway between the anterior superior process of the ilium and the umbilicus. She gave the history of having had a similar attack about a month before. I advised her to go the Norton Infirmary at once and have an operation performed. I made an incision in the region of the appendix and came immediately upon a tumor that looked something like the kidney, but as I had gone through only one layer of peritoneum I knew it could not well be the kidney. Upon further investigation I came to the conclusion that it was the gall bladder. I aspirated, removing quite a quantity of mucopurulent material (flaky) possibly with some pus in it. I opened the gall bladder, after packing around thoroughly with gauze to prevent the cavity being entered by any of this material, and removed five gall stones at once, and pressing my finger high up in the enlarged bladder I dislodged, with considerable difficulty, this very large stone which was fastened in the cystic duct. The gall bladder was carefully stitched to the abdominal wall, cavity of gall bladder being packed with gauze. The woman made a good recovery.

I will add that there was very little discharge for the first three days. Then there was free discharge of bile, entirely relieving the pain which she complained of in the region of the liver. This case proves how many things may occur in the abdomen, and how parts can be shifted from one locality to another. I remember Dr. Dugan operated upon a similar case some time ago at the Norton Infirmary, removing an enormous quantity of gall stones.

DISCUSSION.

DR. W. O. ROBERTS: Were you able to examine the liver?

DR. A. M. VANCE: Yes. The liver seemed to be in a perfectly healthy condition.

MICROCEPHALUS—OPERATION.

I would like to mention another case I operated upon yesterday for Dr. Barbour. The patient was a microcephalic child, two years of age, which I first saw when it was a little less than six months old. Osification of the skull seemed to be perfect then and the child seemed to be very peculiar, having each day a number of epileptic seizures or spasms. I gave it as my opinion then that the child would probably be an imbecile. It has gone on for two years maintaining its physical condition completely but showing no signs of intelligence whatever. I took it to be a typical case for craniectomy, and the parents were very anxious to have the operation done. They investigated the case thoroughly, having been to Chicago and other points for the purpose of discussing the question with other surgeons. Yesterday I made a section of the skull. The child bore the operation wonderfully well. The operation was done very quickly, being finished and dressed in twenty minutes. I present here the bone removed and several instruments which have been devised by different surgeons for doing this work. I first made an incision in the scalp, then with a trephine took out a small button from the frontal bone just above the sinus, afterward making a section to the occiput with the bone forceps which I present here with the specimens. Hemorrhage was very slight. The child is in good condition to-night. It had some little reaction yesterday, temperature going up to 103° F. shortly afterward quieting down to 100° F. There now seems to be much less evidence of nervous irritability, and the muscular movements which were invariably present are greatly improved. The mother thinks there is quite a good deal of difference in its manner, etc., but I do not know whether she imagines this or not. It is the second time I have done the operation, the first being a child nine years of age, a typical case of microcephalus. That child died seven hours after operation.

DISCUSSION.

DR. WM. CHEATHAM: The patient referred to Dr. Vance was brought to me some time ago for examination of the eyes. The child was very restless and fretful, having spasm etc., and it was very difficult to make diagnosis. However I discovered that there was atrophy of both optic nerves.

DR. A. M. VANCE: The eye symptoms have disappeared since the operation. I saw the child two days before the operation was performed and there was no evidence of intelligence; I passed bright objects like my watch before its eyes, but no attention was paid to it. Since the operation the eyes will follow my watch when passed before them and are perfectly steady. Certainly some change has taken place but what the final outcome will be it is hard to say.

DR. W. L. RODMAN: I think Dr. Vance acted very wisely in operating upon one side only in this case, that is, at one sitting. I heard Dr. Keen express himself very freely upon this subject about a year ago. I saw him do one operation of the kind upon a patient six or seven years old. He referred to the operation as done by Dr. Wyeth, which is to operate on both sides at one sitting, when the fingers are inserted in each opening and the bones spread apart forcibly. Keen thinks there is too great an amount of shock when both sides are operated upon at once—he has never done the double operation. The case I saw him operate upon in the Jefferson Hospital a year ago, never had a bad symptom, leaving the hospital in about a week. He, however, expressed very little confidence that the operation would do any good. It was not a very promising case for operation.

FISTULA IN ANO; OPERATION.

DR. A. M. CARTLEDGE: I present this patient to show one feature that is a little remarkable. It is the most extensive fistula-in-ano that I have ever known to get entirely well after one operation. There must have been in all 28 inches of fistulous tract dissected out. The patient is about 55 years of age and says that he first began to have trouble with the rectum about nineteen years ago. The operation performed about a year ago. You will notice one fistula extended across the perineum to the scrotum and several in

other directions; only one went into the bowel. There was evidences of lung infiltration and he was placed upon hypophosphites and cod liver oil and now seems to be in very good health. He was under treatment about three months.

ENURESIS DIURNA.

F. C. SIMPSON, M. D: I bring before the society to night "Enuresis Diurna," a disease that gives us a great deal of trouble to treat with satisfaction. I have, in the past four years, come in contact with quite a number of cases of day wetting, and one or two I have failed to treat with as much satisfaction as I should like. I have tried any number of drugs and failed to get relief for the poor, unfortunate little fellows. You have one of the most frequent causes in a tight prepuce, which keeps the gland bathed in smegma, which macerates the gland and sets up an irritation that results in incontinence. Yet when you stretch the prepuce or circumcise, you find them going along, having the same trouble as before the operation was performed. We have certain nervous elements that seem to play a very important factor in the little fellow's trouble, but when you relieve the nervous trouble the child continues to wet his clothes as before. You have the distressed mother appealing to you to do something that will relieve her afflicted child of such an obnoxious habit, and you take a list of drugs and prescribe them in rotation, to find that you have failed to do what you have promised the mother you were going to.

I do not suppose there is a member of this society that has not had just such experience as I have related, and finally given to the mother the cold comfort of saying the child would out-grow it as maturity was approached. Can we afford to allow the child to wait so long with such a disgusting habit? I say not. I can only say that the child that is not relieved by the ordinary drugs has a cause for his incontinence that is worse than the incontinence, and that is masturbation. And you will find when you treat them for masturbation they are relieved and get well. You must keep a close watch on them, for they are sly and will repeat the act as soon as the blisters heal. You must have complete control over your patient or you do him no good. If you make close inquiry of the mother, you will find that she frequently catches the child rubbing the parts, this results in an erection and immediately the little fellow has made water. He is unconscious of the desire until he finds that his water is trickling down his leg and his clothes are wet. You find that the majority of these patients play with the parts. The question of masturbation is becoming quite a serious one for the physician to cope with, and experience brings this question up quite often during the year.

You may have muscular debility of the neck of the bladder, or the internal sphincter is sometimes a part of the muscular incompetency which is found among different classes of children. Dr. Jacobi speaks of masturbation as not an uncommon cause of incontinence of urine. In his paper on masturbation in childhood he has directed the attention of the profession to the frequency of the habit with all its consequences. In the young, the *caput gallingi nitis* is quite large, also Cowper's glands and the vesical prostate are sufficiently developed to result in erections. The constant irritation of the parts by self-abuse leads to a chronic inflammation of the whole prostatic portion of the urethra and the neck of the bladder, which is very sensitive.

My experience with these cases is that I find this condition to occur in children from five to eight years of age. I speak only of that class that are free from the trouble at night and suffer during their waking hours. I have found tight prepuces in two cases. They were circumcised with relief as long as the wound did not heal, but so soon as the parts were well they returned to their old habits. In both cases I blistered along the dorsum of the penis and down on the perineum. I found that as long as I kept the blister from healing they did not suffer from the incontinence. It was some time before they had any return, but when they began their old habits of playing with the parts, the incontinence returned with the same regularity as before the blistering. I had to repeat the blisters on one, three, and the other four times, before I controlled the habit and it is now four months since either one has suffered from any trouble of that character. I do not question in either of these cases that the cause of the incontinence was masturbation. I base my belief upon the fact that the mother of both

these boys would catch them playing with the parts and almost immediately following they would wet their clothes; and one mother told me that she found the little fellow frequently with an erection when she caught him playing with the parts. You find that these children are exceedingly nervous little fellows. They have loss of appetite, seem to be debilitated and show some mental hebetude.

In regard to treatment, I will say that I have gone all through the list of drugs and find in these intractable cases that you cannot do anything for them except frequent blistering, which must be persisted in until you give them relief. I have yet the first case to see it fail in and I have seen circumcision, atropia, rhus aromaticus and all the drugs that do good in a great many of these cases, fail signally in giving any relief more than temporary.

DISCUSSION.

DR. E. R. PALMER: The subject of masturbation in childhood has received a great deal of attention of late years, and very deservedly so, and all physicians who come in contact with such cases should strive if possible to classify them and to relegate the patient to that class to which he distinctly belongs. A masturbator at five years would necessarily fall into the class of "congenital onanism." A child who is instructed by playfellows in onanism, it will be found from examination of authorities on the subject, is rarely so instructed before his eighth year, while it is very common for them to be instructed by their playmates, nurses, etc., any where from eight to thirteen or fourteen years. A child may inherit a pathological condition of the nervous system that tends to produce congenital masturbation and may become a masturbator almost immediately after birth. Classification should be with the view of determining the management of the case. I think those of you who will study the works of Von Kraft, Ebbing on the subject of psychopathia sexualis will be surprised at the remarkable uniformity of cerebral abnormalities in the ancestors of these children. There is, perhaps, nothing that is more hereditable than sexual perversions. You will find in an exceeding large number of the cases collected in Europe, that insanity is a prevailing condition in the immediate antecedents of the children. You will find various forms of cerebral perversions in the way of epilepsy, hysteria, melancholia, etc., etc. One remarkable point or characteristic is the especial fondness for music on the part of the male members of such families.

In the matter of therapeutics, I can well see how a boy that has been taught to masturbate, may be benefited by such local means as described by Dr. Simpson, and perhaps this, in connection with a little moral persuasion, constitutes our chief means of treatment. But in a congenital masturbator, inheriting from one or both sides that condition of the nervous system which in numbers of instances leads to congenital self-abuse, the difficulties of any local treatment may be easily recognized. This class of cases should be treated exclusively by the same line of practice as is employed in pronounced forms of insanity. It is a form of insanity inherited by the child. All those means calculated to increase the physical development of the child and to counteract his unfortunate hereditaments should be the chief concern of the doctor. I do not believe that these cases of congenital onanism can by any possibility be cured by local counter-irritation or by drugs, but the treatment should be directed to the physical and moral nature of the child. It is not simply a matter of daily involuntary discharge of urine to be corrected, but it is to save the child from the sexual perversion and other horrors that follow in the track of the mental obliquity that first manifests itself in congenital masturbation. Certainly this is a matter that should be looked into with the greatest care, not simply because of the primary trouble, the daily involuntary discharge of urine, but because of the graver dangers that threaten the child when he comes to man's estate.

DR. J. B. MÁRVIN: Dr. Palmer has spoken of only one aspect of the subject and I agree fully with him on that point, but I differ very radically with the essayist in narrowing down these cases of enuresis diurna, nocturna and occasional, to masturbation. A very large proportion of these cases are not due to masturbation. I see a great many cases of this kind, and relief usually follows the ordinary treatment, watching the diet and especially the amount of water they use, etc. I have never resorted to the methods laid down

by the essayist for the treatment of this condition in children. There is no question that the sphincter is very slightly developed in the child, which may explain why they cannot retain the urine. The sphincter becomes more developed after a certain age and the child can then hold his water. I do not think it proper to class these cases under the head of masturbators.

DR. J. A. LARRABEE: Ten years ago I became interested in this subject. I notice that the paper simply included males, therefore I do not suppose the discussion pertains to female children, who are about equally affected by the habit of masturbation, in my experience, but I would like to mention three cases I have recently seen. The children are all female, aged five, six and ten years, and all masturbators. In two of the cases I found the trouble to have been excited by a condition not yet mentioned, that is the presence of ascarides in the rectum. I believe this is possibly a factor in a great number of cases. These two patients were relieved by getting rid of the worms. The irritation produced in the rectum, or the possible presence of ascarides in the vagina, probably directed the attention of the child early to these parts, and the slyness and manner in which the child of six years resorted to the act of masturbation, if it had not been serious, was somewhat amusing. She would steal away by herself, get on a chair and immediately commence a system of wriggling. Her face would become red, the orgasm would be reached and she would drop back exhausted. This was repeated from twenty to thirty times a day.

While I am inclined to believe that many cases of enuresis may be due to the cause spoken of by Dr. Simpson, I agree fully with Dr. Marvin that the vast proportion is due to other causes. I think the nervous element spoken of by Dr. Palmer may have a great deal to do with these cases. The children of nervous parentage are liable to develop not only this condition, but all the train of nervous symptoms. Such children are prone to chorea.

I have never had to resort to the measure of blistering or keeping the parts sore, in the treatment of enuresis. The paper, I suppose, does not include the ordinary bed-wetting. Dr. Watson read a paper before the American Medical Association three or four years ago, including a very large number of children treated for enuresis, incontinence of urine both day and night, and the success of his treatment was so remarkable that I have adopted it. Of course, we all use sedatives to the bladder. We use belladonna, etc., but I do not think we use these remedies exactly as he does. Watson makes a solution (and we know the tolerance of children to the drug) of one grain of sulphate of atropia in one ounce of distilled water, giving as many drops as the child is years old. Probably the average dose would be five to eight drops. This is the point I want to emphasize and impress upon those who use belladonna, viz: that in order to obtain the desired result it is necessary to produce the physiological and even the toxical effects of the drug. I remember the last case I treated was a child sent to me from Peducah, Ky. This child had belladonna delirium following the administration of the drug, and as soon as this was produced, the bed-wetting, which had lasted for four years, ceased and never returned. Watson says very properly that unless the drug is pushed to that extent, a cure will not follow.

Of course in the treatment of enuresis, there are other things which should be taken into consideration. Many cases are due to a condition of the urine, and that should be attended to. In some cases I have resorted to the use of benzoic acid, in others it has been necessary to give turpentine, cantharides, etc. Where a tonic treatment is indicated, I have found nothing better than syr. iodide of iron. I want to record these remedies as having been successful in my practice.

DR. E. R. PALMER: I believe Prof. Harrison has shown that it is not the sphincter interna but the prostate that controls the urine. It has been shown that the prostate is not a gland but a muscle with gland follicles embedded in it. The sphincter is so weak as to be practically of very little use even in adult life, while the prostate surrounds the neck of the bladder and controls it by contraction. This explains why a boy is eventually able to retain his urine—the development of his prostate which comes in later years.

DR. F. C. SIMPSON: In the paper I called attention to what seemed to be incurable cases—patients that have been

treated with every possible care and with every drug that is known to the profession to be beneficial in conditions of this kind and still continue to wet the clothing. There is no evidence of it at night; they go to bed, sleep well and do not wet the bed during the night. I cannot attribute it to anything except the tendency to masturbation. As a proof that the trouble is due to masturbation, I will state that while the parts are kept blistered the urine is retained, but as soon as healing takes place the clothing is again wet.

I do not mean to say that all children who suffer from this condition are masturbators. I stated intractible cases. I could discover no other cause.

Dr. Wm. Cheatham read an article which will appear in next week's REPORTER, on

LEPTOTHRIX MYCOSIS OF THE TONSIL, PHARYNX AND BASE OF TONGUE.

DISCUSSION.

DR. J. M. RAY: These cases of so-called mycosis are comparatively common. When I first commenced treating throat diseases, this form was called "chronic follicular tonsillitis." The fungoid mass springs from the crypts of the tonsils and therefore may often be taken for accumulations of secretions in the crypts; only the microscope will tell positively. In the last few years though, there have been a great many articles written on the subject, and it is now recognized by all throat specialists as due to some fungoid formation. Several cases that I have seen have been of a very aggravated form, in which not only was the tonsil involved, but also the pharynx and base of the tongue. You can take a curette and scrape out these growths, but they will return, no matter what form of medication is applied afterward. The only treatment I find to result in permanent cure is to destroy the follicle from which they spring. This can be very readily done by spraying with cocaine and applying the galvano-cautery.

DR. S. G. DABNEY: I have lately seen several cases of the character under discussion, and would like to make a few points in regard to the symptoms, diagnosis and treatment. I do not agree with Dr. Ray that follicular tonsillitis is the same as leptothrix mycosis. Differentiation between the two diseases is easy. In follicular tonsillitis the exudations are more yellowish in color and very much easier gotten out of the tonsil. In mycosis the growths are shaped like a spear and are very hard to get out. My experience is that in mycosis the patient complains chiefly of a foreign body in the throat. I have found more of the growths on the base of the tongue than on the tonsil proper.

In regard to treatment: Of course the best thing to do is to get out this little mass. Nothing I think is equal to the curette or forceps. I have used electro-cautery, but in the last two cases I have changed to chromic acid with much better result. Attention to general health is often needed. Usually the digestive system is out of order; sometimes we find a rheumatic tendency. The paper quoted by Dr. Cheatham was read by Dr. Knight at the last meeting of the American Laryngological Association. In the discussion which followed, the consensus of opinion was that the disease was best treated by removal of the formation, and the application of the electro-cautery with appropriate means for the general health.

DR. WM. CHEATHAM: There is no doubt in my mind that there is a follicular tonsillitis, as well as a tonsillitis depending upon mycosis leptothrix; and that there are many more cases of the former than of the latter. I have examined seven cases lately with the microscope and found leptothrix threads in but two; one case in which every follicle was filled with white masses, I could not find a thread. Some of these specimens, that of the latter case among them, I had a well-known microscopist examine with the same result as my own. So instead of a majority of such cases depending upon mycosis leptothrix, they are cases of so-called follicular tonsillitis.

DR. H. A. COTTELL: There seems to be some confusion of terms in the names applied to this affection. The term "leptothrix" is commonly applied to the schizomycetes, or microbes, while the term "mycosis" refers to mucoriani, or the moles. These are two distinct natural orders in microscopic cryptogmamic botany. Some of the moles may appear in chains, and might, perhaps, be called leptothrix, but the application of the term to moles, proper, is unusual if not incorrect.

The micro-organism of the disease described by Dr. Cheatham is similar in character to the oidium albicans, which is the parasite of aphthous sore mouth.

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SATURDAY, JUNE 10TH, 1893.

EDITORIAL.

THE SIGNIFICANCE OF THE BLACK-BALL.

The black-ball has become of too free use in our medical societies. There should be a more profound sense of its significance; it is a measure of reproach and odium—often cast upon an honored name through unworthy motives.

Our medical societies are medical schools—and their teaching should be as free as the common light that enters through our windows. Our interests are common and not individual. The gradual operation of our many educational agencies will make the culture of the few that of many, the truths of our medical science those of every physician's knowledge. These societies furnish helps and resources—open avenues for the investigation, discussion and development of the many complex questions of medical and surgical science. Closing doors to these institutions is narrow, selfish and un-American. It is resented by the spirit of a generous profession.

The few very fastidious, kid-gloved gentlemen who work their way into these associations for the prestige such membership may give them, need not fear contamination of their Lord Chesterfield manners or compromise of their personal or professional dignity by one who has crossed their professional paths and aroused their jealousy and prejudice or something worse. There is no rule of etiquette, professional or other, requiring that they should invite the more modest gentlemen to take a pretzel with them.

The black-balling class are usually men who will travel long distances to gratify a feeling of personal or professional revenge. Once informed or suspicioning that the subject of their "Royal disfavor" will be a candidate for membership of a particular society, they are on hand and actively engaged in a work of poisoning. They are unscrupulous as to means em-

ployed; they lose no time, spare no effort in bringing the ignominy, the opprobrium of defeat or rejection upon the candidate.

There is no disputing the fact that every body of men organized for a specific purpose, or, in brief, for any line of work whatever, have the inherent right to prescribe the qualifications requisite to admission to membership. In our medical societies these qualifications should be only those of a medical character—and then not extend to *how much* the physician knows—the inquiry should go no further than his legal qualifications. The law has wisely thrown about the profession all needed safe-guards. The only absolute bar should be infamous character, rendered such by grossly immoral conduct. But we hear of very few of the black-balls cast in our societies being upon moral grounds; it is exceptional that the motives governing are not personal. "Now I have a shot at him—and I have canvassed and rallied my friends"—says the man with the black ball. These societies should welcome into active fellowship every graduate of medicine.

There is no danger to be apprehended from weak men. They will find their level, will learn through professional contact how very little they know and will be given some impulse in the direction of improving themselves in the science they profess to practice. The teaching they will receive will make them more efficient in their work—more fruitful in resource.

If such is not the one great central aim, the intent and purpose of all medical organizations, what is? If they are not great schools they fail of any useful purpose. A medical society to represent an ideal educational body, must be broadly democratic in its policy. The more democratic and broadly representative of the profession at large our societies are made, the earlier and more thoroughly will all charlatanism and quackery be stamped out. Frauds upon the profession avoid all danger of hard pounding—they skulk away from the light.

There are many grand men, masters in their profession, who are successfully pursuing their calling about our country hills, and they are men whom a narrow, selfish and often malignant policy keeps out of our medical and surgical societies. The lessons of these men's observations and experiences would be of value to a body of the ablest men of the profession. They are often men of a high order of ability, thoughtful men, whose merits should be brought into public recognition.

The policy being pursued by our medical societies is averse to their healthful growth and defeats the high end these societies were instituted to serve. They should in the fullest sense be representative of general medical development and not only that of a select, exclusive and limited class, a considerable element of which are small medical politicians whose chief ambition is to become a Grand Sachem or a Keeper of the Wampum Belt, and not that of advancing the art and science with which their names and interests are identified.

The self-respecting physician will not attend medical meetings unless he can attend in the honorable capacity of a member; nor will he seek membership in a society where there is a risk of his having the stigma of a black-ball cast upon his private and professional character by those low-motived men of the profession, who are indifferent to the significance of their act; who are so dead to the instincts and promptings of a high professional manhood that they frequently boast of their mean endeavor to besmirch the character of a fellow in the profession. The motives too often governing in these cases are low, selfish, mean, unmanly, unprofessional and cowardly. And the men who use these honored bodies as avenues through which to serve some personal, selfish end, to gratify some vindicative

feeling, personal pique or jealousy, deserve the severe and swift condemnation of the profession.

While much of our science, many of the procedures and great truths that enter into our medical and surgical practice are hereditary, they were not entailed upon any one or any select few of our great family of physicians. No one man can assume the purple and shaking his little wand say "All this is mine." We have eminent men in our American profession whom it is a professional and patriotic pride to honor; they are men who have gained their position by resolute devotion to study and research, and the value of the work of these men lies chiefly in their clinics, their teaching through our medical societies and journals, and the value, of that teaching is enlarged as the constituency of our societies and journals is enlarged.

After men pass from the schools there is no educational influence brought to bear upon them more potent than that of our medical journals and medical associations. In associations there is a union of minds, a striking of hands in joint effort to advance our knowledge. In the closer social relationship in which men are brought are found opportunities for improvement; it gives new excitements to endeavor and through it will be corrected many errors and crude opinions. It gives opportunity for the inter-communications of the digested experiences of professionally busy men, the lessons of the year—the results of their hard work, their observation, research and experiment.

There are many men in our rural towns, along our country sides, among hills and mountains, who could teach some of our modern professors. We would have them brought into contact. It would be refreshing to see the blush of ignorance tint a tough cheek. The professor, the shining lights and the hangers-on of our medical societies need not in their own knowingness and because of their few advantages, hold their heads quite so high above the multitude. It is true that it cannot be expected that a man with diseased sight will see much merit in his humbler brother.

This black-balling business has gone quite far enough. We have medical journals, conducted by men of distinguished ability, men alive and devoted to every interest of the profession, and we hope they will have a strong word to say upon a matter that has become a reproach to the profession.

We have great scholarly men at home—*Americans*—at whose feet we can sit for our teaching and need not to go abroad,—let there be no reserved seats where this teaching goes on. We are grateful for many valuable lessons taught by eminent men across the waters, and while we are willing foreigners shall weave some of our fabrics for us, we are not willing that they shall do our thinking for us. These societies are the nurseries of our higher medical education and to them there should be no closed doors.

THE NEW QUARANTINE LAW IN PENNSYLVANIA.

The main features of the bill are as follows:—

First—In view of the prospective establishment at an early date of a thoroughly equipped and effective Federal Marine Quarantine on the Delaware Bay or River, the Governor of the State of Pennsylvania is empowered, when satisfied that the United States has established and is maintaining on the Delaware Bay, etc., an effective and efficient quarantine to secure this Commonwealth against the introduction of pestilential, and contagious and infectious diseases, to suspend by public proclamation the operation of State quarantine in part or in whole at his discretion.

Second—The Governor is empowered under certain circumstances, to lease the Lazaretto Station, which station, however, must be discontinued for quarantine purposes after July 1, 1895.

Third—The Governor is authorized to acquire by purchase, etc., a suitable place on the Delaware River or Bay, either within or without the limits of Pennsylvania, for the establishment of a permanent State quarantine station.

Fourth—The State Quarantine Board is to be constituted as follows: 1, the Secretary of the State Board of Health; 2, the President of the Philadelphia Maritime Exchange, or a member of said Exchange, to be designated by him; 3, the President of the College of Physicians of Philadelphia or a member of said College, to be designated by the president; 4, the quarantine Physician provided for in this act; 5, the Health Officer, appointed in pursuance to the act to which this is a supplement; 6, the sixth member to be appointed by the Mayor of Philadelphia; 7, the seventh member to be appointed by the Mayor of Philadelphia. The members of the Board are to serve for various terms, so that all shall not go out at one time.

Fifth—The State Quarantine Board thus constituted shall make rules and regulations, not inconsistent with the laws of the United States and this Commonwealth, for the regulation and management of the Quarantine Station, etc.

Sixth—The Quarantine Board shall establish an office in the city of Philadelphia.

Seventh—The quarantine physican shall be the executive officer of the Quarantine Station.

Eighth—The time the act is to go into effect is July 1, 1893, from and after which late the officers of the Lazaretto, Physician and Quarantine Master shall cease to exist.

Ninth—Section 13 provides that the power of the Philadelphia Board of Health over maritime quarantine ceases when this act goes into effect.

An appropriation of $35,000 towards the cost of securing a site and equipping the same in conformity with the requirements of this act was passed during the last days of the Legislative session.

TRANSLATIONS.

CONTRIBUTIONS TO THE BIOLOGY OF THE CHOLERA BACILLI.*

The author (Dr. Uffelman) used for his investigations the watery cholera stools from which he obtained pure cholera cultures, using gelatin in solution. His results were as follows: In water such as found in the docks of Rostock and Oberwarnow, the cholera bacilli flourished for the space of from two to six days. If the temperature of the water ranged between 19° and 20° C., the cholera bacilli seemed to increase during the first fifteen or sixteen hours.

It is understood that this water was not sterilized, was motionless and not exposed to the sun.

Second. The milk of the cow is also a fluid in which the cholera bacilli will live for two days, even should in that time the milk become sour. In this medium also during the first twelve to sixteen hours in a temperature of 18° to 22° there is an increase of cholera bacilli.

Third. Upon slices of bread, not covered, the cholera bacilli remained at least one day; if wrapped carefully in paper they lived three days; if placed under a glass globe they lived one week.

Fourth. Upon the surface of slightly rancid butter they could be demonstrated from four to six days; in the deeper parts of the butter they lived but from one or two days.

Fifth. Upon roast beef, if placed under glass globe they were found after eight days. In smoked herring placed under similar conditions, they were living on the fourth day.

Sixth. The surface of fruit, if allowed to dry, will give them but twenty-four to thirty hours; if placed under glass globes they live four days. On fresh cauliflower, according to circumstances, they live one to three days.

Seventh. If placed upon printing paper and allowed to dry between the leaves of a book, they live at least seventeen hours, or

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

if placed in an envelope and sealed, they live twenty-three and one-half hours. Postal cards, without covering, gives them twenty hours.

Eighth. Upon copper or silver coins as well as upon other metals, the bacilli, if allowed to dry, die in the space of from ten to thirty minutes.

Ninth. Upon dry wearing apparel, woolen or linen, their viability differs with circumstances. If dry, one to four days, if moist they live longer than twelve days; they even increase on moist linens.

Tenth. Flies can carry the poisonous material for two hours, and coming in contact with meat or milk, will infect it.

Eleventh. The dry hand will carry the viable bacillus for one hour. In general, the results obtained by the author's experiments show that the cholera bacilli have greater resistance than at first supposed. —*Berl. klin. Woch.*, 1891, No. 48.

SACRAL OPERATIONS.

Prof. Zerny, af Heidelberg, says in medicine the treatment of malignant tumors have been passed over to the surgeons for cure. The method, of Herzfeld and Hochenegg, for treating tumors of the pelvic cavity by approaching them through sacral resection, has been practiced by surgeons, but not enthusiastically supported by the gynecologists.

Zerny has practiced this method eight times for carcinoma of the neck of the uterus. One woman died of shock, the remaining seven recovered; but one of these recovered has not had a return during the space of three years.

The method of operation may be at fault, in that it may promote a return. Zerny has for this reason adopted the following method:

When more space is required he has found it better to open the right half of Douglass's pouch and separate the soft parts from the uterus, separating the vagina from the growth as the last stage of the operation.

His reason is to prevent infection of the peritoneum with carcinomatous masses. Zerny has performed the sacral, respectively para sacral, method in a number of other operations with good results; for instance, a chronic vesico vaginal fistula, in two malignant growths of the uterine body and in the case of a young girl, aged twenty, for a large deciduoma of the uterus, about the size of a child's head, which resulted immediately after abortion and had formed metastases in the vagina, and for that reason laparotomy could not be thought of. It was very easily treated with the sacral method.

Two adherent myomas, and fixed dermoid tumors were also among the number which Zerny operated on through the sacrum.

The sacrum method is the most direct in such cases in the parametrium, being within easier reach. He also found it useful in removing a tumor of the bladder and in operating twice for atresia of the anus.—(Read at the twenty-second Congress of the German Society for Surgeons, held in Berlin, April, 1893.)—*Deuts. Med. Wochen.*, 1893.

ABSTRACTS.

THE SPECIAL INFLUENCE OF ALCOHOL ON THE BODY.*

T. L. WRIGHT, M. D., Bellefontaine, Ohio.

The subject may be divided into three parts:

1. The effects of alcohol upon the nerves.

2. Upon the blood, and

3. Upon the physical integrity of essential organs and tissues.

First. The influence of alcohol upon the muscular senses is well marked—the movements of the muscles being hampered and paralized by that agent. There is incoordination of movements in the mus-

* Abstract of a Paper read before the American Medical Association, Milwaukee.

cular system. This is seen in the imperfections of speech and locomotion, and in the incapacity to combine the actions necessary for sewing, playing upon musical instruments, etc.

The vaso-motor system of nerves is always affected by alchohol—sometimes this is observed in flushings, which indicate paralysis—and sometimes by pallor and a spastic state of the capillary system.

Alcohol may also produce neuritis—as, in the tibialis anticus nerve the musculo spiral nerve, and several others. It is plainly injurious to the phrenic, as well as the pneumogastric nerve, causing wide spread functional and structural derangements.

The anæsthetic effects of alchohol upon common sensation, and to some extent upon the several senses, influence very materially the accuracy of perception; and they mislead the mind and judgment in many ways.

Second. Alcohol may produce changes in the appearance of the red corpuscles of the blood. They are deprived of the power to perform their functions physiologically. They may become shrunken, deformed, and incapable of either distributing oxygen, or if eliminating carbonic acid in a healthful and proper manner.

Not only carbonic acid, but other effete and poisonous matters corrupt the blood when the influence of alcohol is prolonged for a considerable time. There is accumulation of carbon, and especially of the hydro-carbons. These may readily undergo slight chemical changes, resulting in the production, at one time, of acetic acid, and again of fat, attended with a disappearance of oxygen, already too scant.

The gouty, or the rheumatic diathesis may become established by contaminations of the blood dependent upon deficiency of oxygen.

The low temperature induced by alcohol, may be partly connected with alcoholic paralysis of certain brain centers; but it is also greatly dependent upon the incapacity of the circulating fluid to hold oxygen, and to distribute it in the general system.

Third. Physical degenerations from alcohol are numerous.

The heart may be prostrated by absence of the proper physiological rests between heart beats. It may also become the seat of fatty degeneration, also of atrophy. There may be dilatation, attended always with irritable beat and palpitation. The valves, moreover, are likely to be injured.

The liver is often the seat of fatty degeneration in the inebriate. The kidneys may suffer in a similar manner. Both the liver and kidneys may be the seats of sclerotic degenerations, attended with contractions and indurations.

The connective tissue may undergo a process of hyperplasia under the influence of alcohol. This condition is likely to be associated with a variety of functional mishaps. But the contraction, which subsequently takes place in the enlarged fibrous substance, is much more injurious. The gradual contraction of the interstitial tissue, especially in the liver, the kidneys and the brain, produces consequences of the most disasterous nature; which are the more to be deplored as they are necessarily incurable.

The inebriate brain may present the appearance of the senile brain, there being atrophy and superabundance of serum.

The membranes of the brain, including the dura mater, may be abnormally adherant and thickened, while the brain itself may present "patches of apparent sclerosis, and other evidences of injury due to alcohol, which resemble the apperances seen in the brains of paretics."

Stranger.—I notice you call your friend Professor. Is he really a professor?

Boweryite.—I should say so. Why, dat feller swollers a sword 18 inches long, stands on his ear and eats glass out of a churn. Professor! Well I should smile.

Suicides of School Children in Germany.

During the last eight years, 289 school children committed suicide in Germany; of these 49 were girls. The causes assigned were: fear of punishment, 80; mental disease, 26; morbid ambition, 19; fear of examination, 16; practical joking, 7; disappointed love, 5. This record is scarcely surprising considering the severe educational requirements of the schools in the fatherland. It is a terrible indictment against "over pressure," the effects of which can scarcely be expected to be limited to those children who are driven to destroy themselves.—*Dublin Journal of Medical Science.*

CURRENT LITERATURE REVIEWED.

LANPHEAR'S KANSAS CITY MEDICAL INDEX for May, contains a paper by Dr. D. J. Hamilton, of Aberdeen, Scotland, on "Asiatic Cholera." The paper considers the source of the disease; the recent epidemic; the cholera germ; the advantage of the early recognition of the organism in a fresh outbreak; and the importance of distinguishing between this spirillum and others found in the human body. The paper concludes with a warning against the danger of a bad water supply.

Dr. Lewis Schooler contributes a clinical lecture on "Compound Fracture of the Skull with depression; Fistula in Ano, with operation under cocaine; and Syphilitic Adenitis."

Dr. J. F. Binnie presents the report of a

Peculiar Course taken by a Pistol Bullet through the Abdomen.

The patient had first received a wound ocvr the left eyebrow, the bullet smashing the outer table of the skull and emerging at a poin tabout one inch from the wound of entrance. The range was so short that the face was tottooed with powder. Nothing of interest was noted in regard to this wound.

A second wound was found on the right side of the chest in front, and the course taken by the bullet, which inflicted this wound, is of peculiar interest.

The bullet first went through two woolen shirts carrying with it a small portion of each, and entered the body at a point on a level with the ninth rib, midway between the right mammary and the anterior axillary lines. At a point almost exactly opposite the wound of entrance, situated on the back about 2½ inches to the right of the spine the bullet could be felt under the skin. The patient was somewhat collapsed but not markedly so.

Under the usual antiseptic precautions the wound of entrance was enlarged and it was found that the 9th rib had been perforated by the ball. This portion of rib was now excised with the rongeurs and the pieces of shirting carried in by the missile removed. The pleura was seen to be uninjured but the diaphragm was perforated and omentum made its appearance in the wound. No wound of the liver was apparent. In order to follow the further course of the bullet and to see whether the intestine was perforated or not, an incision through the abdominal parietes was made external to the right linea semilunaris and the intestines were, on examination, found uninjured. A quantity of clotted blood in the abdomen was removed.

Next an incision was made over the bullet (38 caliber Smith & Wesson) and it was readily extracted. The track of the bullet could be followed, from this last incision, with the finger, for 3½ inches, but nothing of importance was revealed. The laparotomy wound was closed with buried and superficial continuous catgut sutures. The wounds in the diaphragm and in the chest wall were closed in the same manner. The posterior wound was closed with interrupted silk sutures and drained with iodoform gauze. Dressings applied were of iodoform and bichloride gauze, with absorbent cotton externally.

On the evening of the same day, bloody urine was voided showing that there must have been some bruising of the right kidney. The patient recovered.

Dr. H. C. Crowell contributes the

Report of Cases of Myoma Uteri.

His method of operating is illustrated by the following report of a case:

"Adhesions freed, the broad ligaments were tied off on either side with floss silk; the uterine arteries tied, bladder separated and uterus drawn well up and forward, I passed down posteriorly to the uterus to the utero-vaginal junction where I thrust a sharp-pointed scissors through into the vagina and spread them enough to admit my fore-finger. I then cut either way around the cervix with curved scissors, freeing the vaginal attachment to the uterus. The pelvis was then thoroughly irrigated and the ligatures, left long, were passed down into the vagina with iodoform gauze packed lightly in the pelvis as drainage. The abdomen was then closed and patient put to bed and maintained upon an incline planed to favor drainage. The gauze was removed on the third day. After the gauze was removed it was noticed that urine also escaped from vagina, indicating that somewhere injury had been done to the urinary apparatus, which fact simply indicates that greater care should have been observed, and does not in any way militate against the operation. The steps of the operation after adhesions were disposed of were easy and rapid. The convalescence exceptionally free from any complications. Patient walking about in fifteen days. By quiet, urine ceased to flow from the vagina, fifty-six ounces being secured from the bladder in twenty-four hours.

The method employed is that devised by Dr. Florian Krug. The author thinks this operation approaches the ideal method. He thinks catgut should be substituted for silk in ligating the broad ligaments, and the inverted peritoneal surfaces should be stitched together to completely shut off the peritoneal cavity and render less liable a possibility which is by the method employed practically evil, viz: intestinal adhesions. He feels that total extirpation has not a few superior points of advantage over any other method.

Dr. William J. Taylor presents the "Report of a Case of Fracture of the Thyroid Cartilage" which has already appeared in the MEDICAL AND SURGICAL REPORTER for May 6th, 1893, page 694, in the Transactions of the Philadelphia Academy of Surgery.

Dr. Emory Lanphear contributes the report of "Four Cases of Bloodless Amputation at the Hip," illustrating the article with wood cuts showing the various steps in the operation.

Dr. John Punton reports "A Case of Hysterical Aphonia in the Male."

PRACTICE FOR MAY

contains an article by Dr. Wallace A. Briggs on

Uterine Tinkering; What it is and what it is not.

He says: Uterine tinkering and its synonym, meddlesome gynecology, include every form of uterine treatment that does not seek to accomplish a rational end by rational means. Easily foremost among the forms of uterine treatment which are neither rational nor scientific, is the routine use of the applicator. In conditions in which this instrument is ordinarily employed, the endometrium practically constitutes the walls of an abscess cavity. A muco-purulent secretion constantly pours into this cavity and escapes through the cervical canal. In passing the cervix the medicament is mostly expressed from the cotton, which passes on into the uterus, gathers a little mucus or muco-pus, abrades the mucous membrane at several points, and is withdrawn. Such applications are harmful even when seemingly most beneficial, for their curative influence is wholly restricted to the canal of the cervix which, as it improves, contracts and hinders drainage—the most important element in the treatment of uterine catarrh. Another form of uterine tinkering, less prevalent but equally reprehensible, is the introduction into the uterine cavity of sticks of lunar caustic. The best that can be reasonably expected of it is uterine colic and inflammation. Medicated bougies and medicated injections, unless for the purpose of cataphoresis, swell the formidable list.

Sponge, laminaria and tupelo tents are all quite as capable of doing harm as good, and should be used with the utmost discrimination. The form, size and position of the uterus can usually be determined without the use of the sound. Its use is ordinarily meddlesome, and without the strictest antiseptic precautions is always so. Hysterectomy for fibroids, before the thorough and conscientious trial of electricity, is more than uterine tinkering, more than meddlesome gynecology—it is unwarantable imperiling of human life. Total hysterectomy in the late stages of uterine cancer is likewise meddlesome. Exploratory incision is often meddlesome and often a mere lion's skin to cloak carelessness or incompetence in diagnosis. In regard to what uterine tinkering is not, he says: It is not antiseptic irrigation of the vagina in its appropriate conditions. It is not the promotion of uterine drainage. It is not the restoration and maintenance of the normal axis and position of the uterus. It is not hydroscopic and antiseptic depletion by means of glycerine, borax or boracic acid. It is not curettage. The author also includes in the procedures which he thinks are not uterine tinkering, the Apostoli method of dealing with fibroids and the application of electricity generally in the treatment of pelvic neuroses. The so-called conservative treatment of diseased tubes and ovaries is also not uterine tinkering.

Dr. Herbert Terry discusses the subject of

Puerperal Eclampsia.

In the treatment of puerperal convulsions prevention is better than cure, and the premonitory symptoms are of vast importance. They differ very little from those found in uræmia from Bright's disease—headache, and other disturbances of the nervous system, *e. g.*, wakefulness, stupor, restlessness, delirium, and muscular twitchings; disturbances of vision, *e. g.*, sparks or dark spots before the eyes, dimness of vision, or even blindness; vomiting or diarrhœa; œdema, which is of especial significance if occurring in the hands or face; albuminuria and renal insufficiency. The earliest and most frequent danger signal he believes to be the renal insufficiency, and this is even more than a symptom; it is a determining cause. During pregnancy the patient or her friends should report any unusual condition, and especially any of the symptoms enumerated above, and the physician should consider it a duty after the fifth month of pregnancy to make frequent examinations of the urine, especially in regard to quantity and specific gravity. The skin should be kept in good condition by frequent baths and rubbing. The bowels should be kept open if necessary with saline cathartics. Flannels should be worn next the skin, and any danger of "catching cold" from drafts, wet feet, or chilling the surface of the body, should be carefully avoided. The food should be in good quantity, varied, and easily digested, and the digestion kept in as good condition as possible.

If any of the premonitory symptoms of convulsions enumerated above should occur, there is still more reason for looking after the skin, bowels, and kidneys.

If the symptoms are marked we may have recourse to hot baths, diuretics, *e. g.*, digitalis, nitrate of potash, colchium or Basham's mixture. Perhaps the most common diuretic is cream of tartar, which also acts very satisfactorily on the bowels. The diet is of great importance, and theoretically meat should enter into it but sparingly. The blood should be washed out with water, Vichy water, lithia water, and the like. If the symptoms do not subside the question of premature labor comes up. The author believes in inducing labor if the child is viable. If the child is not viable, more delay is not only admissible but imperative. If premature labor is decided upon, the patient is best prepared by the administration of a brisk hydrogogue cathartic. The author prefers croton oil or elaterium in full doses. This may be followed, if needed, by sufficient chloral hydrate and bromide of potash to quiet the nervous system. If convulsions actually occur, there is no question of the advisibility of emptying the uterus at once. The use of veratrum viride, in subcutaneous doses of ten to twenty minims of the tincture every half hour till the pulse is reduced to 60, is suggested in place of bleeding. Pilocarpine has given good results in the author's hands.

Cathartics, especially croton oil and elaterium, have proved of great value as eliminants. Neither acts so quickly as to prohibit the use of chloral by the rectum, or pilocarpine subcutaneously.

To quiet the nervous system morphia has been used in large doses and has proved itself of value notwithstanding its alleged danger in uræmia.

Chloral, with or without bromide of potash, has been almost universally advised. At least a drachm of chloral should be given by enema as soon as possible, or, if the patient can swallow, forty grains by the mouth. Its effect can be noticed within half an hour.

Chloroform or ether may be given to control the convulsions, but they are not to be compared with the chloral in definiteness of dose or prolonged effect.

As adjuvants to the treatment, dry cups or digitalis poultices over the region of the kidneys seem to be of use. If there were too much depression, perhaps from the use of pilocarpine or veratrum viride, the subcutaneous use of strychnia or citrate of caffeine (itself a powerful diuretic), may be of advantage.

This issue concludes with a paper by Dr. Leon Brinkmann on "The Aseptic Preparation of some of the Materials employed in Surgery."

PERISCOPE.

MEDICINE.

Cocaine Antidotes.

S. Mitchell has found that while ammonia, digitalis and brandy will relieve the milder toxic manifestations of cocaine poisoning, they signally fail when these systoms are superceded by severe præcordial pain, weak and rapid pulse, sighing respiration, borborygmus and belching of wind, muscular rigidity, and later paralysis of the whole body, except the brain, which is unaturally active. In such a case he used a large teacupful of clear coffee, and has found it equally efficacious on subsequent occasions. It can be administered cold or hot. He makes no mention of amyl-nitrite.

Gluck advocates dissolving the cocaine in a three per cent. solution of phenol. This, he claims, prevents the toxic effects of the former drug and renders the solution stable; as it is well known, such solutions otherwise lose their anæsthetic effects after twenty-four hours. Phenol, besides has a certain anæsthetic power of its own, forms a superficial eschair, which prevents absorption of the cocaine, destroys bacteria, fungi, etc., prevents decomposition in the solution, renders it aseptic, and wards off reactive congestion.

—*Med. Record.*

The cry of children, according to Dr. E. C. Hill, in pneumonia and capillary bronchitis is moderate and peevish and muffled, as if the door were shut between child and hearer. The cry of croup is hoarse, brassy and metallic, with a crowing inspiration. That of cerebral disease, particularly hydrocephalus, is short, sharp, shrill, and solitary. Marasmus and tubercular peritonitis are manifested by moaning and wailing. Obstinate, passionate, and long-continued crying tells of earache, thirst, hunger, original meanness, or the pricking of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child or on coughing. The cry of intestinal ailments is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing, indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power. Loud screaming sometimes tells of renal gravel.—*Denver Medical Times.*

SURGERY.

After-Effects of Chloroform.

Dr. Luther (*Munch. med. Woch.*) says that changes are found in the kidneys after death by chloroform, however produced. He says that almost after every administration, especially if prolonged, albumen and casts appear in the urine. The author has found that (1) the urine was normal when no after-effects, such as vomiting, etc., were present; (2) of many cases examined, the after-effects were most marked in the single case in which abnormal constituents were found in the urine; (3) albuminuria and cylinduria go hand in hand, and disappear after a few days, and (4) the casts are mostly hyaline. He concludes for these reasons that (1) the use of chloroform should be limited to cases where it is necessary; (2) in every case before prolonged narcosis the urine should be examined, renal disease being a more important contra-indication than heart disease (except fatty heart); (3) chloroform narcosis should be restricted in the case of the pregnant and lying-in, and it should be absolutely avoided in eclampsia, since it must be prolonged, and the kidneys are nearly always diseased; and (4) mild diuretics are of value in the after-effects of chloroform.

Chloroform as a Hæmostatic.

As a general hæmostatic for the controlling of external bleedings, arterial, venous, or capillary, chloroform is most valuable. Applied on a dossil of lint or cotton wool to the bleeding surface, it promptly stays the blood, acts as a direct stimulant to the patient, and leaves no blood crust to fall off and recommence the bleeding. It is peculiarly suitable for all abdominal operations, as it has no tendency to excite inflammation either in the part to which it is applied or to any of the surrounding tissues.

As an antiseptic application it is more powerful than bichloride of mercury solution. The addition of gum resins has been suggested, but they would detract from the value of the application instead of increasing it, for the reasons which will occur to any person familiar with the use of solutions of gum resins.—*Med. Press and Circul.*

On the Use of Thiersch's Skin-Grafts as a Substitute for Conjunctiva.

Dr. F. C. Hotz, of Chicago has had very satisfactory results in grafting according to the method proposed by Thiersch. (It must be remembered that the grafts consist only of "the epidermis and the tips of the papillæ.") The advantages claimed in favor of grafts of this kind over those of mucous membrane are, their greater vitality, greater simplicity of process, and the higher percentage of success.

Dr. Hotz reports four cases in this article in which he employed this method. The operation was performed for the following conditions:

1. For the relief of extensive adhesion of the lower lid to the eyeball (symblepharon) following the destruction of the palpebral and ocular conjunctiva by lime or hot metal.
2. For the relief of the excessive shrinkage of the conjunctiva in trachomatous eyes.
3. Thiersch's grafts can be used for enlarging a contracted conjunctival pocket, to make the insertion of an artificial eye possible.
4. Thiersch's grafts may be used in certain cases of pterygium.—*Ann. Ophth. and Otology.*

NEWS AND MISCELLANY.

Dr. G. Betton Massey will open a summer annex to his sanitorium at Paoli, Pa., June 1st, to remain open during the hot months.

ARMY AND NAVY.

U. S. ARMY FROM MAY 28., 1893, TO JUNE 3, 1893.

The leave of absence on surgeons ceritficate of disability granted Major James P. Kimball, Surgeon U. S. Army, is extended two months on surgeons certificate of disability.

Captain Jefferson D. Poindexter, Assistant Surgeon is relieved from duty at Fort Nebraska, and will report in person to the commanding officer, Fort Bowie, Arizona, for duty at that post.

Major John Brooke, Surgeon, is relieved from duty at Fort Leavenworth, Kansas, and will repair to Philadelphia, Pennsylvania, and enter upon temporary duty as Attending Surgeon and Examiner of Recruits in that city.

Leave of absence for one month is granted Lieut. Colonel William D. Wolverton, Deputy Surgeon General U. S. Army.

Leave of absence for fifteen days, to take effect upon his relief from duty at Fort Bowie, A. T., is granted Captain Richard W. Johnson, Assistant Surgeon.

1st Lieutenant William F. Lewis, Assistant Surgeon, (recently appointed) will proceed from Kinston, North Carolina, and report in person to the commanding officer, Fort Assinniboine, Montana, for duty at that station.

Leave of absence for four months, on surgeon's certificate of disability, is granted Captain Curtis E. Price, Assistant Surgeon.

Captain William C. Shannon, Assistant Surgeon, now in this city, is relieved from further duty at Fort Apache, Arizona Terry., and will report in person to the Surgeon General for duty in his office, vice Captain Harry O. Perley, Assistant Surgeon, who at his own request, is relieved from duty in that office, and will report in person to the commanding officer, Plattsburgh Barracks, New York, for duty at that station.

By direction of the President, Captain William C. Shannon, Assistant Surgeon, is relieved from further duty under the Intercontinental Railway Commission, appointed under the provisions of the act of Congress approved July 14, 1890.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

Besides the opportunity of visiting Washington, a privilege afforded by no other route, tourists via the Baltimore & Ohio Railroad will traverse the historic Potomac Valley, the theatre of the war between the States. At Cumberland they will be offered a choice of routes, via Pittsburgh, or across the Allegheny mountains, 3,000 feet above the level of the sea and via Deer Park and Oakland, the famous summer resorts. The scenery along the Baltimore & Ohio route is the most picturesque in America. Pullman accommodations may be reserved in advance of journey. For rates and information apply to nearest B. &. O. Ticket Agent, or Chas. O. Scull, General Passenger Agent, Baltimore, Md.